PALESTINE EXPLORATION QUARTERLY

PATRON—THE KING

Quarterly Statement

FOR 1937

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(*for description see p.* 31)

THE PALESTINE EXPLORATION FUND

NOTES AND NEWS

THE KING'S PATRONAGE OF THE PALESTINE EXPLORATION FUND

His Majesty King Edward VIII was graciously pleased to grant his patronage to the Palestine Exploration Fund, as appears from the following letter addressed to the Archbishop of Canterbury, President of the Fund:

**PRIVY PURSE OFFICE,
BUCKINGHAM PALACE, S.W.**

13th October, 1936

Your Grace,

I have laid before the King your letter of the 10th October, asking whether His Majesty would be pleased to grant his patronage to the Palestine Exploration Fund. I am commanded to inform you in reply that the King will very gladly give his patronage to the Fund. His Majesty is well aware of the value of its work.

I am, Your Grace,

Yours very sincerely,

ULICK ALEXANDER

**The Most Reverend
His Grace the Lord Archbishop of Canterbury.**

His Majesty King George VI has been graciously pleased to continue the patronage granted to the Palestine Exploration Fund by King Edward VIII, and the President has received the following Memorandum from the Privy Purse Office:

PRIVY PURSE OFFICE,
BUCKINGHAM PALACE, S.W.

MEMORANDUM

The Keeper of the Privy Purse is commanded by the King to state that His Majesty is pleased to intimate to those Societies and Institutions which were recently granted Patronage by King Edward VIII, that they may continue to show the Sovereign as their Patron during the present Reign, unless otherwise notified.

14th December, 1936.

THE change which readers of this journal will observe in its outward form has been the subject of much careful consideration by the Executive Committee of the Fund. The QUARTERLY STATEMENT has had a long and honourable history, of which the frontispiece to this issue will serve as a reminder, and its contributors include many names distinguished in various fields of service to the British Empire. But the changed outward form of the QUARTERLY STATEMENT implies no break with its past history and traditions. Nevertheless the change is not without significance. On the one hand it is hoped that the new cover and size, embodying something of the modern advance in design and type-setting, may be found attractive to our readers, and help to make new friends for the journal. On the other hand it has been the desire of the Executive Committee that subscribers should in future receive a larger and better journal for their money. There is no thought of diminishing the space hitherto devoted to the records of original work in exploration and excavation in Palestine and related fields, and to discussion of archæological and epigraphical material. But it is intended that there shall be a broadening out of the field hitherto covered by the QUARTERLY STATEMENT to include articles on geographical and geological aspects of Palestine, on the flora and fauna, on the Arabs and their history, and many other subjects of interest to students of Palestinian affairs and problems. Nor will it ever be forgotten that one of the foremost interests in the minds of those who founded the fund was the connection between Palestine and the Bible, and one of the main objects of this journal will continue to be the recording of every fresh discovery which throws new light on Bible history.

May we express the hope that those who have found the journal in its old form a source of interest will endeavour to secure new friends for it in its new form.

An historical interest attaches to three of the illustrations published in this issue of the QUARTERLY STATEMENT (Frontispiece and Plates I and II). The first two are taken from Lieut. H. H. Kitchener's *Photographs of Biblical Sites*, a series of twelve photographs and descriptions published in 1876. The photographs were taken by the late Lord Kitchener during the first part of his work with Lieut. Conder on the Survey of W. Palestine from November, 1874, to June, 1875. The third illustration is from a hitherto unpublished photograph taken in Mt. Sinai during the Geological Expedition and Survey of the Wady Arabah, 1883–4, and shows five members of that expedition, the sixth being Reginald Lawrence who took the photographs.

In Miss Garrod's presidential address to the Anthropological section of the British Association at Blackpool in September of this year, the palæolithic flint industry of Palestine assumes a new and unsuspected importance as a possible link in the spread of certain phases of that industry from the East into Europe and Africa. We are already familiar with many facts which point to the spread of culture from the near Eastern area westward between the 4th and 2nd millenniums B.C., and it is interesting to learn that this westward movement of civilization may have begun far earlier than had previously been thought possible. Incidentally, Miss Garrod points out that new knowledge has destroyed the old simplicity of the view laid down in the Musée Préhistorique, in which the Palæolithic cultures appeared as a straightforward succession from Chellian to Magdalenian. A somewhat similar change has been taking place in the attitude of modern scholarship to the historical criticism of the Old Testament in the light of archæological discoveries.

M. André Parrot's excavations at Mari, referred to in an earlier issue of this journal, continue to yield material of first-rate importance. From the royal archives in the palace have come about 15,000 cuneiform tablets among which M. Thureau-Dangin has recognized important texts containing the diplomatic correspondence of the last king of Mari, Zimri-Lim, whose palace was destroyed by Hammurabi about 2000 B.C. Some of the objects discovered at Mari are similar to those found at Asshur, Ras Shamra, and in Cyprus, indicating that Mari was on the great commercial route, which was frequented as much in the 2nd millennium B.C. as in the 3rd. It is interesting to note, considering that the migration of the Terahites is often dated in the time of Hammurabi, that the route followed by the patriarchs Terah and Abraham of Ur, going towards Harran, probably passed by Mari, and that the time of their migration was precisely in the palace epoch.

The Iraq Expedition of the Oriental Institute of Chicago University, under Professor Frankfort, has had a profitable season. Two objects of special interest are reliefs dated by Professor Frankfort at about 3000 B.C. The first is a representation of a Babylonian god slaying a figure with a human body whose head is a one-eyed solar disc with rays. It may possibly be a representation of some form of the myth of Gilgamesh and Humbaba. But its special interest lies in the suggestion that it presents us with the origin of the Cyclops myth. The second relief contains a fine representation of a humped bull, the sacred *bos indicus*, and affords further evidence of a link between Sumerian culture and the culture of the Indus valley. On the same relief, which is on a steatite vase, there is an unmistakable representation of a Sumerian, showing that the vase is of Mesopotamian origin.

Remarking on the problem raised by this discovery, Professor Frankfort writes : " The clue is to be found perhaps among the discoveries made by Sir Aurel Stein in his recent explorations in Baluchistan and Southern Persia. It seems certain that the regions separating India and Mesopotamia were much less arid about 3000 B.C. than they are now, and that we must take into account not only the sea-route by which trade might be carried on, and which has been almost exclusively the only means considered hitherto, but also the existence of a cultural continuum eastwards from Mesopotamia down to the very borders of India."

In the latest issue of the *Quarterly of the Department of Antiquities* in Palestine there is an account of interesting discoveries made in the course of superficial clearances in the courtyard of the old castle of Jerusalem, generally known as the Citadel. Buried beneath the foundations of the Citadel there were found the remains of an older line of fortifications consisting of strong walls with as many as eight undisturbed courses at one place. There appears to have been an ancient line of fortification crossing the courtyard of the present castle and consisting of two towers which with the north-east or David's Tower would lie on a curve connected by two very big curtains. Such a line clearly formed no part of the existing Turkish or Mameluke castle, and it must have an ancient history, as its depth and massive style tend to show. It includes some masonry that is very similar to the fortifications of ancient Samaria, and the foundations are several metres below a slope of accumulated rubbish similar to that encountered recently on the western slope of Mt. Zion. The conclusion is that it probably dates from the time of the Jewish kings.

Recent important discoveries have also been made on the site of Beth-Shearim, the modern Sheikh Abreik, about five miles west of Nazareth. The existence of ancient vestiges has been suspected ever since Conder and Kitchener, surveying the country on behalf of the Palestine Exploration Fund, found a delineation of a " menorah " or lampstand, which however they listed as a tree. The present discoveries were due to the chance exploration by a boy of a fox hole, which he found led down into a passage cut in the rock. Investigations by Maisler and Schwabe brought to light the existence of catacombs similar to those of Alexandria, dating from the early Christian centuries. The catacombs are very extensive and will probably require several years to excavate. Many inscriptions in Aramaic, Palmyrene, and Hebrew have come to light, as well as two marble tablets, fifteen different types of the " menorah " design, columns reminiscent of those of Capernaum, pictures of the Ark of the Law, large oil jars, and, strange to say, of Charon's boat. The whole culture is Hellenistic, and is a very good example of that mixture of Greek and Jewish ideas which was so prevalent in those early ages.

Professor Garstang has been visiting Turkey and North Syria to study the relationship between the archæology of Palestine and Asia Minor and North Syria in the middle Bronze period, with the object of filling the gap of evidence which exists between 1600 and 1800 B.C. He has been inspecting sites with a view to excavation.

Friends of the fund will be glad to hear of the honour which has been paid to Sir Robert Mond in France. The Académie des Inscriptions et Belles Lettres, being called upon to elect a foreign Associate Member in the place of the late King Fuad, has chosen Sir Robert Mond. A French journal remarks appropriately : " To the late King of Egypt there succeeds an experienced Egyptologist who, by virtue of more than thirty years of researches and brilliantly successful excavations, occupies the position of President of the Egypt Exploration Society."

A PRIZE of £50 is offered for an essay in English on some archæological or ethnographical (not mainly linguistic or literary) subject connected with Prehistoric or Pharaonic Egypt.

The essay should show original research. The words " archæological," " ethnographical " are to be interpreted in the widest sense. The subject may be selected by the candidate himself, and the essay should be illustrated by as much comparative matter as possible from other lands, whether ancient or modern. The utmost use should be made of photographs and drawings.

The prize will be awarded only if the work is of sufficiently high standard to warrant it.

Mr. K. de B. Codrington, Dr. Margaret A. Murray, and Mr. G. A. Wainwright have kindly consented to act as adjudicators.

The candidate may be of either sex and of any age. The essays should bear their title, and should be accompanied by a covering letter. Only the covering letter, *not the essay*, should be signed. Essays must be typed, and must be sent in before 31st December, 1937, to Mr. J. H. Hay, Solicitor, 29 Bedford Square, London, W.C.1, who will give each essay a number and forward it to the adjudicators. Other correspondence should be addressed to Mr. G. A. Wainwright, 26 Elm Park Gardens, London, S.W.10

The Executive Committee wish it to be understood that, whilst desirous of giving publicity to proposed identifications and theories advanced by contributors to the PALESTINE EXPLORATION QUARTERLY, they do not necessarily accept them as correct.

BRITISH SCHOOL OF ARCHÆOLOGY IN JERUSALEM

THE SIXTEENTH ANNUAL GENERAL MEETING of the School was held on Tuesday, November 24, 1936, at the Rooms of the Society of Antiquaries, Burlington House, London, W.1. The President, Sir Frederic Kenyon, presided over the Business Meeting of Subscribers. The Chair at the Open Meeting was taken by The Rt. Honourable W. Ormsby-Gore, M.P., Secretary of State for the Colonies. At this meeting Mr. P. L. O. Guy, Director of the School, described the proposed Archæological Survey of Palestine.

MINUTES

PROF. J. L. MYRES (Hon. Secretary) read the Minutes of the Meeting held on January 15, 1936, and these were confirmed and signed by the President.

REPORT AND ACCOUNTS

PROF. MYRES, in moving the adoption of the Report and Accounts for the year 1935–6, said that Mr. Guy, the new Director of the School, had been in residence in Jerusalem for the greater part of the year. As there had been no excavation carried on by the School the Director had been able to do valuable work in other directions, especially in revising and improving the School's library and in preparatory studies for the Archæological Survey of Palestine which the School had undertaken in conjunction with the Palestine Exploration Fund. On the other hand, there had been a certain amount of field work. The Colt Archæological Expedition had had an exceedingly interesting season ; first at Sbeita and then, when the water-supply there ran out, the Expedition made the most of the disaster by moving to the nearest water-bearing site at Auja. There, in the course of clearing buildings adjacent to one of the Byzantine churches, the Expedition was fortunate enough to make an interesting discovery of papyri of the sixth to seventh centuries in an unusually good state of preservation, the majority Greek, some Arabic, some bilingual. Those papyri were now being deciphered by Professor Kramer at the University of New York. There would have been excavation on a palæolithic site in the extreme south, and a portion of the Mond Studentship Fund had been placed at the disposal of Miss Joan Crowfoot for that purpose, but circumstances were unfavourable, and the grant had been held over till another year.

For a variety of reasons the income of the School was, unfortunately, appreciably less than last year. Several old subscribers had passed away; the grant from Manchester University and one or two others had been reduced. As the Accounts stood, things looked a little worse than they actually were, because Glasgow University had remitted its grant of £20 to Jerusalem instead of to the London Account. Thus £20 should be added to the total of £561. Nevertheless, the position was indeed serious. The School could just carry on, maintain its Director and the absolutely necessary expenditure on the library, and London office. It was really a very serious matter that the circle from which the School drew its support remained so narrow, in spite of the extremely valuable work the School had carried out, not only for archæological science, but as a centre of information available to all and of interest in Palestinian studies.

All would join in an expression of gratitude to the Honorary Treasurer, Sir Robert Mond, who had not only made a generous contribution to the General Fund, but had put at the disposal of the School £200 for the reorganization of the library and, in particular, for revision and completion of the School's very valuable sets of periodicals.

As to the items " Unvouched expenditure " on p. 9 of the Accounts, it had not been possible, owing to an accident, to bring to London the vouchers for certain items. The Accounts had not yet been to the Auditors and these vouchers would be submitted in due course.

THE PRESIDENT put the motion for the adoption of the Report and Accounts to the vote and declared it carried.

Election of Officers.—MR. W. H. BOULTON proposed the re-election of Sir Frederic Kenyon as President, Sir Robert Mond as Honorary Treasurer and Professor J. L. Myres at Secretary. SIR EDGAR BONHAM CARTER seconded the proposition and it was carried unanimously.

Election of Council Members.—PROF. J. L. MYRES proposed that the following be elected to the Council for a period of three years from October, 1936 : Sir Edgar Bonham Carter, The Rev. Canon H. Danby, Regius Professor of Hebrew at Oxford, Mr. G. R. Driver, Fellow of Magdalen College, Oxford, and Professor Bernard Ashmole, Yates Professor of Classical Archæology, University College, London. The proposition having been seconded, was put and carried unanimously.

Election of Auditors.—On the motion of Professor J. L. MYRES, seconded by Mr. J. W. CROWFOOT, Mr. A. M. Hyamson and Colonel S. Newcombe were elected as Auditors.

THE RT. HON. W. ORMSBY-GORE, M.P., Secretary of State for the Colonies, presiding at the opening meeting of subscribers and friends of the School, said : Ladies and Gentlemen,—You have asked me to preside at this Annual Meeting, and I do so with much pleasure. Until a few months ago it was my good fortune to serve in the office of First Commissioner of Works, a post which I held for over four years. That office brought me into contact with the State's responsibility for the care and conservation of national monuments and archæological remains and with the control of excavation in this country. My responsibility, as executive head, for the administration of the Ancient Monuments Act convinced me not only of the national asset which these monuments and archæological sites constitute, but of the duty of modern governments to do more than they have done in the past as regards conservation of national monuments and the encouragement of scientific archæological research. Thanks to the personal interest of the present Chancellor of the Exchequer in this subject, I was able to obtain from him a rather more liberal financial provision for the administration of the Ancient Monuments Act than has been forthcoming in the past. When I recall the difficulties which Lord Avebury, when he was Sir John

Lubbock, M.P., encountered in the days of my boyhood in getting the first tentative Ancient Monuments Act through Parliament as a Private Member's Bill and the fact that it was not until the year before the war, 1913, that the Government of Great Britain established any adequate or effective department for dealing with these matters, I note the welcome change of attitude that has come over the scene in recent years. A public conscience has at last been aroused to the fact that man does not live by bread alone, and that governments have a duty in archæological matters which is no less a duty than the provision for social and material progress and welfare.

That the lessons I learned as First Commissioner of Works will not be forgotten at the Colonial Office is my only assurance to you this afternoon. In Malta, in Cyprus, in Palestine, in Ceylon, we have the most important remains of the ancient history and civilization of those countries. While a beginning has been made in all of them to bring colonial responsibilities into line with the newer outlook of the United Kingdom, I still feel that much remains to be done ; but whereas as First Commissioner of Works I was disposing of funds granted to me by Parliament for the purpose, as Secretary of State for the Colonies I have no such direct control, and I have to endeavour to persuade colonial governments forming their budgets, and their taxpayers also, to make more adequate provision for such service. I fully realize, especially in the case of the countries I have mentioned, that there are many claims—especially in Palestine consequent on the recent tragic and most expensive disturbance—on the funds available ; but, as, happily, I know the present High Commissioner of Palestine is in full sympathy with my hopes in this matter and with yours, I trust that when we are in a better position to assess what is possible this question will again be re-examined in all its aspects.

I know that it has been in the past a subject of reproach to Britain that in comparison with the lavish expenditure of other countries, notably Italy and France, on the restoration of archæological work of various kinds, our expenditure has appeared mean. While there is some truth in this, I hope we shall not rush from one extreme to the other and embark upon a policy of over-restoration and of hurried and even tendencious exploration designed to produce spectacular results often for purely teleological ends. The bottle-neck in sound progress is the supply of men, and nowadays of women, to whom you can confidently entrust the very responsible and delicate duties both of conservation and of modern scientific excavation with its rightly high standards of technique. That our standard is high is due as regards conservation to the tradition established at the Office of Works by Sir Charles Peers and the similar traditions even longer established by the British Museum, by the Society of Antiquaries of London and by the two famous British Schools of Archæology in Athens and Rome. Fortunate are we, therefore, that these two older schools—the Athens School celebrating its jubilee this year—have been followed since the war by the creation of a third school in Jerusalem. Before people should be allowed to be let loose on historic sites it is essential that they should be intellectually equipped with the knowledge and art both of conservation and excavation. The archæological school is therefore a fundamental prior requisite of all that may follow. Your School has already made important contributions to knowledge in the early pre-history of Palestine of which the " Galilee Skull " is the most famous find, and in your work, plans and discoveries at Jerash.

Of all countries under British rule, Palestine, the Holy Land of three faiths, is the most international in character and as mandatories we are trustees for all the nations of the League on whose behalf we administer that historic land. Before Judaism, Christianity and Islam arose and spread through the world, Palestine by reason of its unique geographical position as the bridge between Asia and Africa, had a long history and an even longer pre-history. Its very name recalls those mysterious people, the Philistines. The Egyptian and Hittite emperors fought, colonized and shaped some of its early civilization. Before either of them there were the as yet dimly discerned occupations of the Early Bronze and Neolithic Ages, and, thousands of years before even these, layer below layer, are the remains of Paleolithic Man.

Turning to the other direction of the time-scale, the impact of the Israelites, the Greek Empire of Alexander and his successors and their influence in Hellenizing the Eastern Mediterraean, followed by the Romans, the Nabateans, the

Sassanian Persians, the Arabs, even the Druses, the Frankish Crusaders, the Kurds under Saladin, the Mamelukes of Egypt, the Turks under Suleiman the Magnificent, have all left their mark, left some visible evidence of their occupation of that wonderful little country which conforms more than any other to the drama of human history and has been the scene of the evocation of man's highest religious and poetical imagination.

Amid the grave anxieties of our political difficulties, which are at this moment the responsibility of a very able Royal Commission, let us remember the large heritage of human endeavour which has led, by a strange process of history, this, our island in north-western Europe, to become charged not merely with the heavy burden of government of that difficult country, but with the duty of conserving more worthily the records of Palestine's illustrious past. With all too much that is tendencious and troubling us in this modern world, let us remember that the true scholar, whose only aim is the search for objective truth, has many lessons to teach politicians—nay, nations as a whole—and that among these scholars there is none more worthy of attention and encouragement than the archæologist, whatever his race or creed, provided he is inspired by that zeal for truth and for learning for its own sake. It is because that is the standard of your School that it gives me the greatest pleasure to take the Chair at your Annual Meeting this afternoon. (*Applause.*)

MR. P. L. O. GUY, Director of the School: Mr. Chairman, Ladies and Gentlemen,—The Palestine Exploration Fund, which was founded in 1865, has a very long and honourable record of investigation in Palestine, and of publication of its results. One of its earliest ventures was a Reconnaissance of Western Palestine and a partial survey of that country made by Captain Wilson in 1865–6. That was followed by an exploration and survey of the southern desert by Palmer and Tyrwhitt-Drake in 1870–1, but even after that there was no complete map of the country. Although many travellers had visited Palestine, very many isolated sites had rarely been seen. Journeys were mainly confined to well-established routes and while information had been gathered about these, sites off the usual routes had not been examined and there were very many blank spaces.

The Fund realized that a proper survey was needed, and it made an appeal for that in *The Times* of November, 1871. But much more than a map was undertaken, and much more was accomplished. The terms of reference were as follows:

> The objects of the present expedition to Palestine are :
>
> 1. To obtain an accurate map of the country, on which, in addition to the topographical features, shall be laid down the sites of all towns, villages, ruins, roads, etc.
> 2. To collect, as far as possible, the native names and traditions connected with the various places.
> 3. To make tentative excavations where necessary.
> 4. To carry on a series of meteorological observations.
> 5. To make such notes as may be possible on the geology of the country, its botany, zoology, etc.
> 6. To take any opportunity which may offer of making excavations at Jerusalem, which will lead to decisive results.
> 7. To examine and make plans and drawings of interesting archæological remains in the country.
> 8. To carry out generally the scheme which has been proposed in the several prospectuses issued by the Committee.
>
> *The Survey* of that portion of Palestine lying on the west of the River Jordan is to be regarded as the principal object of the expedition. The American Palestine Exploration Fund, working side by side with us, will undertake the survey of the country lying on the east of the Jordan.

You see, they set themselves a very large task. As to personnel, they already had Mr. Tyrwhitt-Drake in the country, and in November, 1871, three Royal Engineers were sent out : Captain Stewart, Sergeant Black, and Corporal Armstrong. Unfortunately, Stewart fell ill very shortly after his arrival in the country and had to be invalided home at the beginning of the following year. He was unable to return.

However, Tyrwhitt-Drake and the N.C.O.s went on with the work provisionally and they carried out the task of setting out the base line near Ramleh, not far from Jaffa.

Shortly after that the Fund found a new Royal Engineer officer, and in July, 1872, Lieut. Conder was sent out to take charge. He and Tyrwhitt-Drake carried on until July, 1874, when Drake died, at the age of twenty-eight, of exposure and malaria contracted in the work of the Survey. A few months later, in November, 1874, a new member went out in the shape of Lieut. Kitchener. He joined the staff at Dhaheriyeh, between Hebron and Beersheba, and I sometimes think it would not be amiss if a small stone were set up there to mark the point where Kitchener's activities in the East first began.

In October, 1875, Kitchener and Conder, with the rest of their party came back to England under circumstances which I shall presently relate, and in January, 1877, Kitchener returned to Palestine without Conder, but with three N.C.O.s and completed the Survey by September, 1877. The whole work was ready for publication within seven years of its commencement, that is to say, by September, 1878.

The map that they made consisted of twenty-six sheets on a scale of 1-inch to the mile. The sheets covered some 6,000 square miles, running from Dan to Beersheba. Of that Conder was chiefly responsible for 4,700 square miles and Kitchener for 1,300. That map has been, and still is, indeed, for many purposes the standard map of Palestine. But the Survey was much more than a map. For each sheet there was a memoir. Kitchener wrote five of those memoirs and Conder wrote the rest. In every memoir there were three sections :

A. Geographical and topographical description. All villages described.
Subheads : Orography, Hydrography, Topography, Cultivation, Identification of ruined sites.
B. Archæology. Detailed descriptions of ancient remains, with plans, sketches and drawings. 50 photos by Kitchener.
C. Ethnographical, with notes on population and inhabitants and on legends and traditions. Trade and manufactures, to a certain extent.

A number of special surveys were made, for example, Athlit, Beisan, Samaria, Masada. Also, a certain number of geological notes were made.

In regard to the difficult question of place-names these two young officers collected and published 9,000 Arabic names, with their translations. They had immense difficulty in getting those names right. Apart from the spelling variants, Conder found that the ignorance of the peasants made it exceedingly difficult to get the name of a place correctly, and Tyrwhitt-Drake gives a humorous little account of what happened when a peasant was asked about the name of a place.

I ride up to a man ploughing in a wady and say : " What do you call this wady ? " " Which wady ? Where ? " " Why, the one we are in : here." " What do you want to know for ? " "To write it on the map," etc. "Oh, this is called El Wad" (the valley). "Nothing else?" "No." "Well, the men here must be illiterate donkeys." (Turning to the man): "Why, when you go home and say that you have been ploughing in the 'Wady,' perhaps they'll think that you've been on the other side of the hill yonder." "Oh, no. I should say I have been in the Wady Seràr." "Then you call this Wady Seràr?" "Yes, that's what we call it."

That was by no means the only thing that Kitchener and Conder were up against, for considerable active hostility was shown against them and they were attacked or fired on at least half-a-dozen times between 1872 and 1875. But they always succeeded in getting the offenders punished in spite of the unhelpful attitude of the Turkish authorities, about whom Conder wrote home : " Each official tries to make the affair as long as possible." Finally, in July, 1875, they very nearly lost their lives in what Kitchener describes as " a murderous and provoked attack on the party by the Moslem inhabitants of Safad."

They were pitching their tents just to the north of the town near the spring. It was a hot day and Lieut. Conder had just got underneath one of the tents which had been pitched and was having a little rest. He became aware that there was rather a row going on outside and went out to find an elderly sheikh going round in a very insolent manner and examining and laying fingers on everything. Conder was informed that the sheikh had said that he had seen "many dogs like them before." Then, mysteriously, a revolver which was hanging on a tree by the tent was missed and one of the servants went up and asked the old sheikh if he knew anything about it. Conder also went up a little closer and began talking to the sheikh, who promptly grabbed him by the throat. Conder replied by knocking the sheikh down. The sheikh got up again and went for Conder a second time and then began to shout for his young men, calling out many times, " Where are the young men ? " (*Shebab.*) The *shebab* ran up and presently there were about 200 people all occupied in throwing stones at Lieutenants Conder and Kitchener and the members of their party, all of whom were badly wounded. A shot missed Kitchener by a hair's breadth, and he was chased for his life by a black man with a large sword. He was wounded in the thigh by a stone and very nearly there was no Lord Kitchener. Finally, a message was sent to the Governor of Safad, who came up with a troop of soldiers and Mr. Marcus Segal, the British Consular Agent, and the party was saved. They were all so much injured that they had to go into hospital.

They considered the matter to be so serious that they took it up through diplomatic channels, writing to Constantinople, and a trial was arranged to take place at Acre. It was an important affair, at which the British Consul-General from Beirut was present. Sixteen men were convicted and sentenced to various terms of imprisonment, and a collective fine of £112 10*s*. was imposed on Safad. This, however, did not satisfy the two young officers, who had very proper ideas about keeping up British prestige. First they managed to get the fine increased to £150, and, finally, they were successful in having it brought up to £270, which sum was duly handed over to the Palestine Exploration Fund to help research.

Their wounds, and the general state of their health, as well as a serious outbreak of cholera in the country, decided them to return to England. But the Survey was not complete, so Kitchener went back to Palestine in the spring of 1877. It was characteristic of him that he went, as soon as he could, to Safad, where he was officially received by the Governor, and obtained an apology from the ringleader of the attack. He finished the Survey a few months later, and, as I have already told you, the whole work was ready for publication by September 10, 1878, or fifty-eight years ago.

If one studies the map they made, and reads the three great volumes of the Survey of Western Palestine, one cannot fail to be impressed by the vastness of the field which these two young officers covered, and with the thoroughness with which they did their job. One can, without hesitation, say that the Survey is the most important single work that has been published by the Palestine Exploration Fund, and that it is a very splendid monument to the men who carried it out so successfully in the face of very great difficulties.

The Survey covered the 6,000 odd square miles between the Litany in the North, and Beersheba in the South, but did not touch that part of the desert, or semi-desert, between Beersheba and Akaba which is now included in Palestine.

The work done there by Palmer and Tyrwhitt-Drake had been more in the nature of an itinerary than a full survey, but the Palestine Exploration Fund again stepped in and made that good, though not for some years. In 1914 the present Treasurer of the Survey Committee—the new Survey about which I am going to tell you—Colonel Newcombe, then Captain Newcombe, was sent out to survey the southern desert. Two men who were digging in the East accompanied him. Captain Newcombe was rather doubtful about these men because they were archæologists, and I have heard that, before he saw them, he referred to them as greybeards from the British Museum. Those two young men were Leonard Woolley and T. E. Lawrence, both of them then about thirty years of age. Well, they covered fairly accurately the southern desert, although their time was very limited. The map was made, and their notes on the archæology of that desert are contained in Annual III of the Palestine Exploration Fund, which is called *The Wilderness of Zin* and has lately been republished. Thus by the outbreak of the war, the whole of what is to-day called Palestine had been covered by the Archæological Survey.

After the war the British School of Archæology was founded, not as a rival, but as a sister institution of the Palestine Exploration Fund. The School has collaborated with the Fund ever since its foundation and that collaboration continues most happily. Now, both bodies have come to the conclusion that a revision of the old Survey is urgently needed.

They have therefore formed a strong joint committee and will shortly issue an appeal.

There have been many changes in Palestine since the 'seventies, many due to time and weather, but more, I am afraid, due to the hand of man, though since the present Administration took over, the damage by man has been greatly reduced by the activities of the Department of Antiquities. Furthermore, archæological knowledge has increased. There have been very many extensive and thorough excavations, and the Palestine Exploration Fund has been able to publish a map of the sites which have been excavated.

The task before us in our revision of the Survey is much easier than the task which confronted Kitchener and Conder. Communications are much better. In addition to many main roads there are many new village roads in Palestine and thus we are enabled to get much more easily to sites which were previously almost inaccessible. Then we have no map to make. There is a Government Survey Department which is in process of making an excellent map. It has already produced a number of sheets. The scale of that map is slightly smaller than the 1-inch to the mile map produced by Kitchener and Conder; it is 1 cm. to 1 km. That is a little too small for our purpose, but fortunately the Director of Surveys is a far-seeing man and he has caused prints to be made of every sheet that he has so far produced—he is continuing that policy—twice that size; that is to say, 1 to 50,000, instead of 1 to 100,000. That size is most convenient for archæological work. The sheets of that map so far produced are Jaffa, Jerusalem, and Haifa, and I think one or two more have been printed urgently since I left Jerusalem. We propose to start on the Jaffa sheet.

Apart from having no map to make we need only give a summary of the geographical and topographical detail. As to ethnography and the population, here again the work is completely covered by the admirable census which was carried out by Mr. Mills for the Government in 1931, and which I understand will be periodically revised. We do not need to deal with trade and manufactures because there is a department which deals with them and issues statistics at intervals. What is very important, we shall have little trouble with names because the Survey Department and the Department of Antiquities have combined and have published lists of names of every site and village in the country with the standardized spelling adopted by the Government and in three official languages. Still, there is room for a good deal of work. We must have a memoir for each sheet of the 1 to 100,000 map. The material for this is partly provided in the original Survey memoirs and in reports which have been collected by the Inspectorate of the Department of Antiquities. That Inspectorate, with which I was at one time connected, is responsible for examining all the antiquity sites of Palestine, of which there are over 3,000. Most of those sites, except very unimportant ones, have been visited and reports exist upon them. Those reports Mr. Richmond, the Director of Antiquities, tells me will be readily put at the disposal of the Survey, and that, I think, will save a good deal of trouble. Not only has Mr. Richmond promised his collaboration in that connection, but every member of the Department of Antiquities—they are all interested in the School—is keen on helping in every way. We can also count upon help from other archæological bodies in Palestine. We have most excellent relations with the Dominicans, that is to say, with the French School, and with the American School. I am sure they will help by lending us students, by getting little bits of special work done, by undertaking bibliography, and by the use of their valuable libraries.

There have been many excavations undertaken since the old Survey was carried out. We must note these and make references. There must be a bibliography for every important site in the country, and there are many sources which can be dug up, both new and old. That means a good deal of work. I believe that it will be possible for arrangements to be made that these references should be searched for not only in Palestine, but in London, at the headquarters of the School here and with the aid of the Palestine Exploration Fund.

The memoirs will be by map-sheets, but the sheets of the 1 to 100,000 survey map will not cover the southern desert. There is, however, a smaller scale map of that and that, I think, should be the subject of a certain amount of revision and of a separate memoir. There is in the south the expedition which Professor Myres mentioned, namely, Mr. Colt's Archæological

Expedition. He has a number of young men and women working there on the Byzantine remains, and most of the remains in that part of the world are Byzantine. I hope Mr. Colt and his personnel will help us to examine the other sites in that southern country, apart from the sites in which they are actually excavating. They already have their headquarters down there. They have a house at Sbeita which would make a very convenient centre from which to operate.

Apart from memoirs by map-sheet there should be monographs on the main periods and on special subjects, with special maps of the whole country. For example, it is worth while trying to get out a monograph on communications. Roads have a habit of staying in the same place for a long time, and a small monograph on the communications and what they imply as between Palestine and other countries would be exceedingly interesting, not only to archæologists, but to anybody interested in the country as a whole. As to different periods, we have the Stone Age. The School has already sponsored Dorothy Garrod's excavations in the caves. She is very keen to go on with her work and would be ready, if we managed to get the funds, to make herself entirely responsible for a monograph on the palæolithic period in Palestine. There is the Crusader period at the other end of the scale, and when Lawrence was a young man he published a thesis on the Crusader castles of Syria. He worked down just into Palestine, but did not complete the survey in that country. I think it would be proper that the new Survey should produce a separate monograph, with a separate map, of the Crusader remains in Palestine, care being taken to show the intervisibility of the various castles. The Roman antiquities have been dealt with by Mr. Avi-Yonah of the Department of Antiquities.

We want the aid of air photography, and we should like to publish many more than the fifty ground photographs that Lord Kitchener was able to take. We can count for that on the photographic section of the Department of Antiquities who, I am given to understand, will put their photographs at our disposal. We want, of course, to enlist the aid of the Air Force to take air photographs, both vertical and oblique. I have found such photographs to be of great value in Palestine.

Although our task is easier, it is still difficult. But we can count on a number of voluntary helpers. We hope it may be possible for Fellowships to be granted in certain cases to enable young people who could be useful to us and who would profit by the service they gave us to come out to Palestine. It will be possible to save expense by doing a great deal of the work we have to do as piece-work. It is always a business when you have an archæological show going on some 3,000 miles away to get people to the spot. One has to pay fares which they often cannot afford themselves. We might occasionally, I think, make arrangements for students of other schools or of our own school already out in Palestine to stay out for an extra month or a few weeks to do a special job, and pay them a small fee for that. We have to find quarters for ourselves, and I understand we are to have the help of the Government. But the question of quarters in Jerusalem is somewhat difficult. Most of the Government lettings are occupied. So far, the only buildings which have been suggested to me as possible for us to work in are not entirely suitable. One is over the Damascus Gate and very small. The other has only an earth floor, and arrow-slits for lighting. We may manage to obtain something a little better.

Our chief difficulty, of course, as a Survey, is funds. I understand that there will shortly be an appeal issued to the public, but I hope that any of you here will urge your friends to contribute to this joint undertaking. We shall be starting with the Jaffa sheet as soon as I get back. We have decided that it is worth while going on with one sheet to make a beginning, and when we have something to show we may get people sufficiently interested to enable us to go on. There are about 420 sites on that sheet which are already listed and set out in order. When I return to Palestine I hope to start getting them put on the map by the help of the Director of Surveys and to start on a memoir, which I trust will be published before too long.

The Survey is the joint undertaking of the School and of the Palestine Exploration Fund. The School will make it its main field project for some years to come. The School has, however, other activities, and since this is its Annual Meeting it is right that I should not omit a reference to them.

In the past there have been Mr. Crowfoot's considerable activities. He has dug at a number of places. Jerash and Samaria are the two best known to you. Unfortunately, he is for the moment not going back to dig. I hope later he may change his mind and go out again to do some more excavation, also under the auspices of the British School of Archæology. He would be very welcome out there again, I know, because all the other people in the Schools in Jerusalem regret that he has left and hope with me that he will return.

We have to a certain extent, sponsored the Colt Archæological Expedition. We have not provided funds for it, though we have done whatever we could to help it in other ways. Happily, that expedition is financed independently. It is associated with the School as an archæological institution recognized by the Palestine Government.

The School has also sponsored Miss Garrod's valuable prehistoric research, to which I have already referred.

We have a certain amount of property to look after, and a very excellent library, whose utility to students has recently been enhanced by Sir Robert Mond's gift of £200, which has enabled us to carry out a very important piece of work; that is, to make the sets of our periodicals almost complete. Thanks to Sir Robert Mond, we have filled up many gaps in them and students who now go to consult the periodicals can be nearly certain of finding the volumes they want.

Then we have received a number of students, archæologists and visitors of all sorts who come to call on us and ask for help and information, just as they asked my predecessor, Mr. Crowfoot. They must not be sent empty away.

The School, however, has the greatest difficulty in maintaining these activities as it ought to do as the School of the Mandatory Power in Palestine, for since the withdrawal some years ago of the annual Government grant it has been desperately poor, and indeed, has been kept in existence largely by the generosity of its Honorary Treasurer.

The French School of Archæology in Jerusalem has a large, permanent building and a most adequate staff. The American School has endowed quarters, including lecture-room and living quarters for staff and students. The Archæological Faculty of the Hebrew University has been able to augment its personnel and to increase its accommodation.

The British School has no quarters of its own. Its library is given space by the Americans, and the rest of its equipment, such as it is, is stored in a couple of rooms at the French School. If we want to give a lecture, we must borrow a room, and even a lantern ; and the wretched Director has no office at all.

I am afraid that archæologists are sometimes regarded as strange and unworthy creatures. Some years ago we were described in the Palestine Official Gazette as the " inmates of archæological institutions"! Nevertheless, archæology is an important thing in Palestine. A very large section in the Mandate is devoted to it ; the building of the new Jerusalem Museum, Mr. Rockefeller's fine gift, and the different excavations carried out, have caused very many thousands of pounds to be spent in Palestine, and antiquities excite a justifiable interest among many people, both residents and visitors, who are not necessarily archæologists. I have found that soldiers are particularly keen to hear about archæology, and there are many troops in Palestine just now.

I think it would be an excellent thing if the British School could not only carry on the commitments which it has in hand and undertake the activities which it has in immediate view, but even increase them. I should like to see the British School of Archæology as a centre which could supply information with regard to the antiquities of the country much more fully and freely than it now can and also a place in which we can decently give lectures to those interested, who are many.

It is naturally difficult to run a School which has no headquarters of its own on the spot. When I am asked, "Where is the British School of Archæology ? " I have to reply, " We have a library at the American School. Will you come round there and I will show you the books," and that is almost all I can do for them. I hope you will agree with me that it is worth while doing something to encourage people to give a little more to the British School, and I trust that the hope expressed by the Colonial Secretary will come to something really material. (*Applause.*)

DESCRIPTION OF FRONTISPIECE AND PLATES I-II

FRONTISPIECE

Elisha's Fountain at Jericho

"A STREAM of cool water rises from beneath the great mound known as Tell es Sultan, the site of Jericho at the time of Joshua. It comes out beneath a wall, in which a small circular niche has been found, probably the remains of a little Roman temple to the genius of the stream. It was the water of this spring that Elisha caused to become sweet, having been previously salt and undrinkable (2 Kings ii, 22). The view is taken about ten yards below the spring head and looking east. It gives a good idea of the luxuriance of vegetation in parts of the Jordan valley, which are well watered, and of the capabilities of the district to produce every kind of semi-tropical fruit and vegetable if placed under cultivation. In the time of Herod the Great this part of the valley was irrigated and cultivated ; palm groves existed, which have disappeared since the seventh century, and the climate was so charming that it was pronounced by Josephus 'a region fit for the Gods.' The Plains of Jericho were given as a royal present to Cleopatra.

The want of drainage and cultivation has caused the country to become barren, except in the immediate vicinity of the streams, and the climate almost deadly at certain seasons of the year.

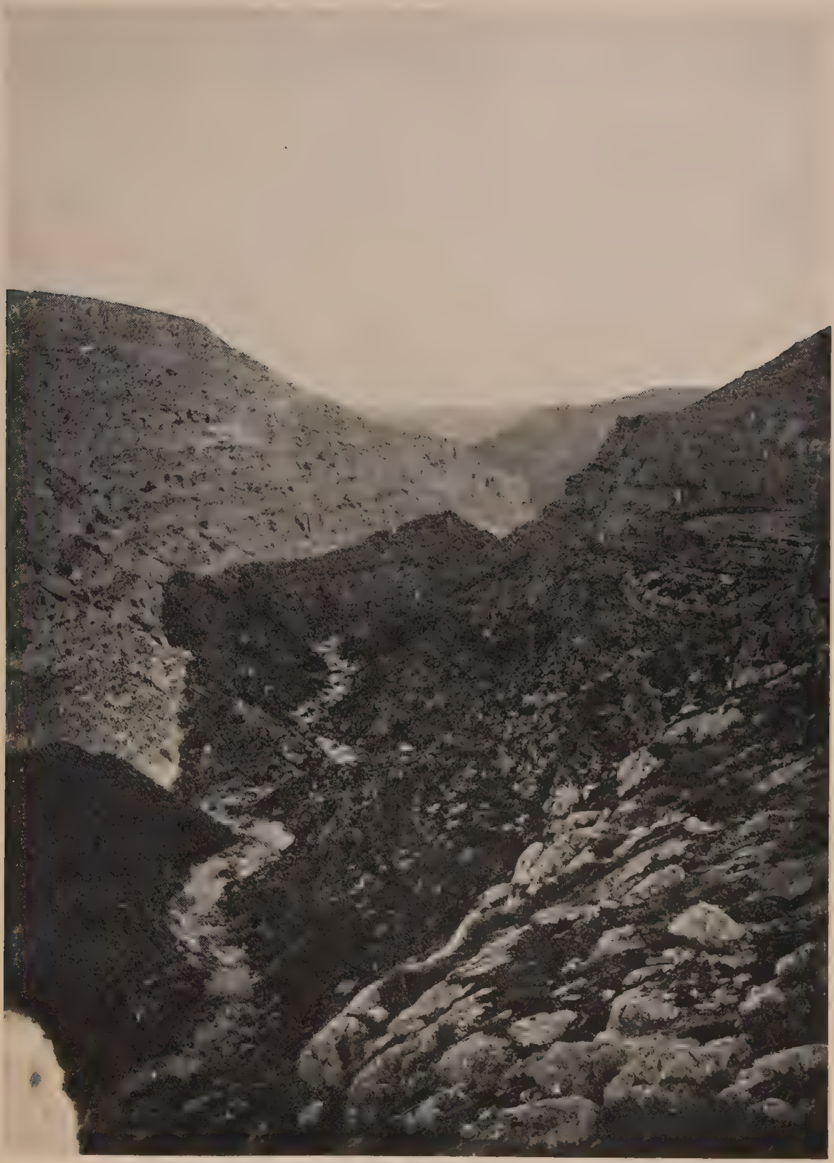
The principal tree in the picture is a huge castor-oil plant, which is a conspicuous object in the scene. The figure is that of Lieut. Conder, R.E."

PLATE I—The Valley of Michmash—Scene of the Attack of the Philistine Camp by Jonathan and his armour-bearer

" This view is taken from the southern brink of the valley of Michmash, now called Wady Suweinit, a name supposed to take its derivation from the Hebrew *Seneh*—meaning a thorn. The gorge is called Valley of Thorns by Josephus. The point from which it is taken is at the end of a plateau called ' Gibeah in the Field ' in Scripture (Judges xx, 31). The spectator looks eastward towards the desert above Jericho. The northern cliff is probably the exact site of the camp of the Philistines, and the point at which Jonathan and his armour-bearer crossed over and climbed up. The northern cliff is in bright light, and the southern in the shade. This is probably the real origin of the name Bozez, or ' shining,' which is given in the Old Testament (1 Samuel xiv, 4) to this side of the valley. The cliff retains the name of El Hesn, ' the Fortress,' a title which may very probably have originated in its being the Philistine fortress in the time of Saul.

At a later period this terrible gorge proved a considerable obstacle to Sennacherib in his advance on Jerusalem (Isaiah x, 28). It is the most precipitous valley in the whole district of Benjamin, and can only be crossed by a winding path leading from Jeba (the ancient Geba) to Mukhmas (the ancient Michmash). Both these towns are out of the picture towards the left hand."

PLATE II—Unpublished photograph taken in Mt. Sinai during the Geological Expedition and Survey of the Wady Arabah, 1883-4. The group comprises Major Kitchener, Prof. E. Hull, Dr. E. Gordon Hull, George Armstrong, H. C. Hart. The photograph was taken by Reginald Lawrence.



THE VALLEY OF MICHMASH
(*see p.* 32)

GEOLOGICAL EXPEDITION TO THE WADY ARABAH, 1883-4
(*see p.* 32)

THE MODERN GEOGRAPHY OF PALESTINE

Extracts from a Paper Read at the Meeting of the British Association at Blackpool, 1936

BY LT.-COL. F. J. SALMON, M.C.
Commissioner of Lands and Surveys

FEW parts of the world can boast a larger or more varied bibliography, both ancient and modern, than Palestine, and I propose to deal as little as possible with those aspects of Regional Geography which can be studied from existing works, and to concentrate on the activities of my own department.

Land Tenure

In the Ottoman days, a title to a piece of land in Palestine was a very vague document. There was no survey, recording shape, area or position ; the description was usually, to say the least of it, ambiguous, and the extent which was the gauge for taxation, was almost invariably falsified to save the pocket of the owner. Big blocks were, and in areas where there has been no land settlement, still are, shared by large numbers of owners who have no defined boundaries and who often alter the position of their plots from year to year. People were not in a position to take great interest in their holdings or to develop them. Partition of land by owners of shares was usually effected in long narrow strips, producing uneconomical shapes, sometimes a kilometre or even as much as four kilometres long and only three or four metres wide, which had no advantage except that the cultivator knew that he was getting a good average sample of the soil of the countryside and would not have the trouble of turning his plough at the end of a furrow more than a very few times ! For the Arab who wanted to develop his property and the Jew who wanted to purchase land to settle on, the position was most unsatisfactory. To purchase land from a title owner, or worse still, from an occupier who had no title, was a very uncertain business, and often still is. The difficulty, however, is now being solved, though very slowly, by Land Settlement.

Large scale surveys are being made by the Survey Department: and plans are prepared showing the boundaries of parcels of land according to claims. The claims are recorded and examined by Palestinian Assistant Settlement Officers, while cases of dispute are heard by British Land Settlement Officers. The final boundaries are demarcated on the ground by iron marks, recorded on accurate block plans, and title is entered in the Land Registers.

Even in areas that are not under Settlement, a land-owner can apply for an authoritative registration of title on a modern survey, but if there is a dispute, this has to be settled by the Land Court, a much slower, more expensive and laborious proceeding than an investigation and judgment by a Settlement Officer. Many Arab land-owners and a large number of Jewish Settlements have established title in that way and development is thus affecting the face of the country in areas still unreached by Land Settlement, though of course in a patchy and sporadic way.

Roads and Communications

Before the war, there were very few places in Palestine that could be reached on wheels, and only a very indifferent carriage road ran up from Jaffa to Jerusalem. The motor map of to-day, which marks only those roads that are practicable by cars, shows the immense changes that have taken place in this direction, though in some cases we are merely re-opening communications which existed in Roman times. The map of Roman Palestine, superimposed on a grey print of our Administration Map, shows the relation between Roman and modern communications.

Conditions of trade having altered, some of the principal ancient routes, like the one from Nablus to Beisan, are now almost untraversed.

Railway communication with Egypt, which was established during the Great War, has, of course, been maintained. There has been no call for any but a few minor alterations in the railway system. Lydda, the principal junction, was chosen for strategical rather than commercial reasons, and there has been discussion as to whether the advantages of a change would justify the cost.

Aerodromes

A development that may in course of time appreciably affect the face of the land, and the skies above it, is the aerodrome. Modern air ports are being constructed at Lydda and at Haifa, while landing grounds are distributed over the country. Imperial Airways once landed their flying boats on the Lake of Galilee, and there is talk of their doing so again, but there is a difficulty to overcome. However much Palestine may have changed since Bible days, the meteorological conditions are much the same. The Lake of Galilee is liable to sudden storms with wind rising to hurricane strength and six foot seas. Such conditions are not good for anchored sea-planes. On the Dead Sea, where the configuration of the surrounding country does not develop such fierce local air currents, the wind does not rise above forty miles an hour, although the fifty-mile stretch of water will still pile up a six-foot sea.

The Conveyance of Oil and of Electric Power

The produce of Babylon no longer brings fortune to the transport contractors of the desert or to the Beduin raiders who took levy along the routes. The principal import to Palestine from the landward side comes neither by camel caravan, nor by lorry, nor by train, but surges through the underground pipes of the Iraq Petroleum Company.

From the Rutenburg electric works on the Jordan, or from subsidiary power stations, long rows of pylons carrying the cables trace their way in many directions across the country. Although of some topographical importance, these are not shown on our small scale maps, as it is not possible to mark them all, and the inclusion of some and omission of others might constitute a danger to low-flying aeroplanes.

Water Supply

For untold centuries, the conditions of life in the country have been regulated by the same distribution of water supply. Springs, like those at Beisan, Kabria, Jericho, and Ras al 'Ain, have created centres of population, and to some slight extent the Romans artificially extended the influence of such supplies by aqueducts, but modern wells and pumping machinery are, in the plains, altering the whole appearance of the country. At present, we have little knowledge as to how much of the rainfall is recoverable from wells, and what proportion of the available supply is sufficiently free from salt to allow of its use for agriculture or domestic purposes. There are signs, in places, that the water table is being lowered, and it may be necessary, in years to come, to exert some control. The Department of Surveys has, for the past three years, been carrying out a water resources survey. Depth, level, discharge, and salinity of wells have been measured, and no doubt these results will be compared with re-measurements made after a lapse of a suitable time.

The Survey is establishing an accurate system of levels throughout the country so that not only may the water table be properly studied, but geologists in future generations may be able to discover whether there are earth movements at work affecting the relative heights of the Judean Hills and the Jordan rift. Our double sets of height observations are comparing to within one millimetre in each kilometre of distance measured. Our main concern is to find sufficiently permanent sites for our fundamental bench marks.

Land Drainage

If you study old maps or the records of travellers in Palestine, you will see or read of large areas of swamp and marsh. Orange cultivators round Jaffa and Jewish settlers elsewhere had carried out a certain amount of draining of these before the war, but the process is now proceeding very rapidly. The Birket Ramadan, so well known to shooters of duck and other water birds, is nearly gone. A powerful Jewish organization is dealing with the Huleh marshes in the North, probably the most unhealthy area in the country ; on our maps, the blue marsh sign between Haifa and Acre will have to be erased before long, drainage is being carried out round Beisan and soon the malarial mosquito will be hard put to it to find a spot where he can bring up his family. He will have to migrate to the more arid districts where his brothers have for so long ravaged the Beduin round the desert springs and wells at such spots as 'Ain Fashkha and 'Ain Jidi on the Dead Sea, or 'Ain Hosb and the wells of the Wadi 'Araba.

Forests

Afforestation is being carried out by Government and by private enterprise, and many pleasant copses of pine, eucalyptus, acacia and other trees are scattered about the country. More practical than beautiful will be the areas of indigenous scrub planted for the protection of the soil on the hill slopes, and so a Palestine forest must not always be expected to look like Burnham Beeches. No doubt, in course of years, the appearance of quite large areas, especially in the hills, will be changed by trees, but uncertainty of title is affecting forest work, which cannot be satisfactorily carried out until ownership and boundaries have been properly defined. Opinions are divided as to whether large extents of forest existed in Palestine in Biblical times, but there is no particular difficulty in growing trees on the Judean Hills. There are some fine extents of woodland in northern Trans-Jordan, and that the Lebanon had considerable cedar forests is certain. When Lachish was taken by Nebuchadnezzar, he made huge bonfires under the limestone walls in order to calcine them, but the ashes recently found by excavators show that he collected his timber from the local olive groves ; a fact that has dated the operation to the month of August as the charred stones of the fruit are there too. This, however, does not necessarily mean that there were no natural forests beyond the immediate vicinity of the town.

The Towns

In the towns, the development, in recent years, has been even more marked than in rural areas. You have all heard of the remarkable way in which the Jewish town of Tel-Aviv has developed. One can return to Palestine and lose oneself among new roads and streets, where only sand dunes and a few stray buildings had existed when one had gone on leave three months before. Tel-Aviv, built on the sand dunes, and until recently a suburb of the oriental town of Jaffa, is now a modern European city with a population of some 165,000, greatly exceeding in size the original Arab town where the port is situated. Jaffa itself has also considerably increased since the war, and there are many modern buildings.

A comparison of the two maps of Jerusalem, published in 1926 and 1936, shows a very marked change, and now that there is an adequate water supply, expansion in this city will no doubt go faster than ever.

Haifa, with its new harbour, is developing apace. Garden cities and attractive new residential areas are springing up on the beautiful ridges of Mount Carmel, nearly 1,000 feet above the sea.

Proper municipal water supplies and drainage schemes have so far been lacking in the three principal towns, but Jerusalem, which until recently had an insufficient supply from 'Ain Fara and Solomon's Pools, is now connected to the springs at Ras al 'Ain, some forty miles away and 2,500 feet below it, by the new pipe-line. Similar schemes are in preparation for Haifa, Jaffa and Tel-Aviv, where modern drainage is also being installed.

Extensions are everywhere being controlled by town planning schemes, but want of design in the earlier days has left a legacy of ill-conceived lay-outs that cannot be corrected.

There is one place, however, where changes have been very few, and that is the Old City of Jerusalem within the Walls. A survey of this area was made in 1864–5 by Captain (afterwards Major-General Sir Charles) Wilson, R.E., under the auspices of the Ordnance Survey. This plan merely showed the outline of the streets and a number of the more important buildings.

There is not the same call for surveys within the Old City as elsewhere as there is no urban taxation or modern land registration. It became clear to me, however, that for the archæologist, the tourist, the general public and to some extent the Administration, a proper picture of the place was very desirable and an up-to-date map has been produced. It makes no pretence at the accuracy necessary for boundary disputes as the survey was of a topographical nature. The outline of the 1865 survey was found, when checked, to be remarkably accurate, and it was used as a framework, thus avoiding the expense of a complete re-survey. The intricate irregular super-imposition of buildings upon each other makes it impossible to show all the detail of the Old City clearly on a plan, but some of the more important covered ways and underground works have been indicated in broken red.

The Cadastral and Revenue Surveys

Without an accurate survey, well marked on the ground, registration of title to land is of next to no value, and so by far the greater part of the activities of the Survey Department have perforce to be confined to large scale surveys for Land Settlement and Land Registration and also for rural and urban property taxation.

Our surveys are based on an excellent modern triangulation carried out by my predecessor, Major Ley. It started from an astronomical fixation and a base at Imara in the South and joins on to the French triangulation in Syria in the North.

It will be many years before a complete large scale cadastral survey on the 1:2,500 scale showing all property boundaries will be completed. We have, however, covered all except the more desert areas with a 1:10,000 fiscal survey showing the country in fairly large blocks according to taxation categories. This survey, which is published in the form of village plans, was carried out by plane table, and although not contoured it shows all physical detail, such as paths, streams, &c., and forms a very useful record from which different classes of maps can be produced and from which field sheets can be prepared for contouring or revision on the ground.

The Topographical Survey

In 1929, excepting Colonel Newcombe's small scale maps of Sinai and the South, surveyed in 1914, and a few military maps produced by the armies during the war, nothing topographical had been published since the Conder and Kitchener one-inch survey of the 1870's.

My predecessor, by reducing the 1:10,000 fiscal plans, and supplying contours in the field, produced a series of excellent 1:20,000 sheets, covering some of the more productive lands in the plains, but it became clear to me that it would take very many years to complete the country on this scale, which moreover is too large for the undeveloped areas.

A suitable scale for the topographical survey is 1:50,000, but considerations of economy and the necessity of completing the series within a reasonable time, forced us to publish on the rather small scale of 1:100,000.

The compilation, the survey and the fair drawing are being carried out on the 1:50,000 scale, and photo-reduced for printing, so that we have the material for reproduction on the 1:50,000 scale at any time and one such sheet, for the area round Jerusalem, is actually in course of production at the present time.

The greater part of the detail in the 1:100,000 series is compiled from reductions of the 1:10,000 fiscal survey. Plain table field sheets are prepared and sent out to the contouring party who also correct and revise the detail where necessary. A considerable area in the centre of the country was contoured during the war by the Survey of Egypt staff. This has been checked, found good and accepted.

The work of our Palestinian staff has been checked not only from the ground but from air photos, and considering the fact that they have been locally trained and have had very little experience of this class of work, their contouring is very creditable. There is a barren wild and mountainous area between the Jerusalem-Beersheba road and the Dead Sea. The cost of moving a survey party about there and keeping it supplied with food and water is excessive. There is no fiscal survey in this mountainous desert and so we have enlisted the services of the R.A.F. who have photographed it. A triangulation party has been through it, fixing the height and position of a number of prominent points that are visible on each photograph. The work is now being plotted and the contours supplied by stereoscopic methods. We have no expensive stereo-plotting machinery but our approximate methods will give all the accuracy that is wanted in this inhospitable region—the wilderness of the scape goat!

The face of Palestine is not only covered by existing towns, villages and modern settlements, but also by the visible ruins of other sites that have existed at various periods throughout the ages—Canaanite forts, Israelite towns, Roman camps, Jewish synagogues, Byzantine churches, Saracen and Crusader Castles, Arab villages, Turkish posts and Khans.

These may not only be important to archæologists, historians and geographers, but they are definite features with specific names and cannot be omitted from a topographical map. Although these " khirab " have been named with very small lettering, which is not always very easy to read, they, nevertheless, sometimes tend to crowd up a map on the 1 : 100,000 scale.

One of the features of our new Palestine maps is the sign for rocky ground. It is unusual on topographical maps to show rocks other than cliffs and precipices, but when serving in Cyprus, I found the necessity of indicating rocky areas where going is very difficult, where wheeled transport is impossible and where little can be grown. There, I was limited in colours and the sign I selected was similar to the Ordnance Survey symbol for shingle. Printed in black it rather clogged up the map. In Palestine we have our own photo-reproduction and printing plant, and I have tried grey and mauve with more success, but the fact is that you cannot indicate these rocky areas without sacrificing to some extent the general appearance and clearness of the map.

It must, however, not be supposed that nothing at all can be done with such country. Olives, vines and fig trees can often be grown and there is the remarkable system of patch cultivation practised by the fellahin who will plough and plant up with cereals little scattered bits of soil between the rocks often no more than a few feet square.

Some of the more permanent cultivation is a prominent feature of the countryside and so garden areas, olives, vines, orchards and citrus groves are shown. The green signs admittedly do not improve the general appearance or clearness of the map but they tell you a good deal about the country and sometimes help you to find your way. For those who do not like the green or the mauve rock sign we now print an edition with these omitted. Such an edition, perhaps with the " outline " in grey, will be used as the basis of the new Archæological Survey to be undertaken by the Palestine Exploration Fund and the British School of Archæology.

The classification of first class, second class and other roads is purposely somewhat vague as conditions are continually changing and anything more definite would cause the map to become rapidly out of date.

On our 1 : 100,000 series, you will never find it necessary to stick two maps together in order to study the country within a few kilometres of your standpoint, as each sheet overlaps the adjoining one by five kilometres. It has been possible to do this without increasing the number of our series of fourteen sheets, and I think it is a great advantage.

Conclusion

It is not always sufficiently realized that a good survey, based on an adequately designed, accurately observed and well adjusted framework is a national monument of the first importance. Security of title to land, on which rural development depends, can only be ensured by an accurate cadastral survey, effective marking of boundaries on the ground, and a well designed, up-to-date Land Register.

The illustration and the study of a large number of human activities require good maps and a knowledge of how to use them.

In Palestine we have a good framework, and if the mapping is not being proceeded with as rapidly as the importance of the country warrants, and not always on the most desirable scale, it must be remembered that there are other very urgent calls on the Department of Surveys.

The requirements of Land Settlement, Registration of Land Transfer and mutation, as well as Urban and Rural property tax, have to be met.

In some two years, when the fourteen sheets of the 1 : 100,000 series reaching down to the Southern desert, are complete, it is likely that parts of the country will have undergone such development that some of the earlier sheets will have to be revised if they are to bear any resemblance to the state of affairs on the ground. Of the motor map there have already been five editions within two years of its first publication, and other maps for the maintenance of internal security have also to be regularly revised and reprinted.

I hope next year to produce a map of Crusader Palestine, and it is likely that geological, hydrological, agricultural and other special maps will be required.

THE CHRONOLOGY OF PALESTINIAN EPIGRAPHY

By Theodor Gaster

II.

The Chronology of the Earlier Scripts

The accompanying diagram (Fig. 1) indicates in pictographic form what we take to be the true history and chronology of the earlier Palestinian scripts, previously described. The following paragraphs will serve to explain its salient points.

1. **The scripts go back to Aegean Linear Writing.** This is proved by demonstration in our comparative table (Fig. 2). It has been admitted, in so far as the " Phoenician " type is concerned, by such diverse authorities as Evans, Petrie, Dussaud, Waddell, Puchstein, Praetorius and Sundwall. That it is also true of the " Sinaitic " type and of the South-Semitic is proved by the table.

2. **The scripts were not borrowed directly by each group, but were developed from an intermediate Palestinian Linear.** This is proved by the fact that the same Semitic names for the letters obtain in every group. That these names are of hoary antiquity and were originally given by the Semitic mariners who brought the linear script to Palestine is proved by the fact that those letters (e.g., ḥeth, ṭeth) which, as we shall see, were secondary and invented natively on Palestinian soil have, in fact, no genuine Semitic names. This shows that the Semitic nomenclature dates right back to the period before those secondary letters were invented.

3. **The various scripts are independent derivations from a common source, rather than successive links in a single epigraphic chain.** This is proved by the fact that there is divergence, and not agreement, in the ways whereby each script adapts the original Linear writing to the needs of Semitic speech.

Thus the original Linear did not distinguish between h and h̲, representing both sounds (as did also its Asianic descendants) by one character. The various Semitic scripts supplied the deficiency in different ways. Sinaitic used the original character for h, and supplied h̲ from the alphabet of the neighbouring Egyptians. Phœnician, however, discarded the original character altogether, using the "short e" sign for h, and representing h̲ by a secondary formation therefrom. Alphabetical cuneiform exhibits a compromise between these

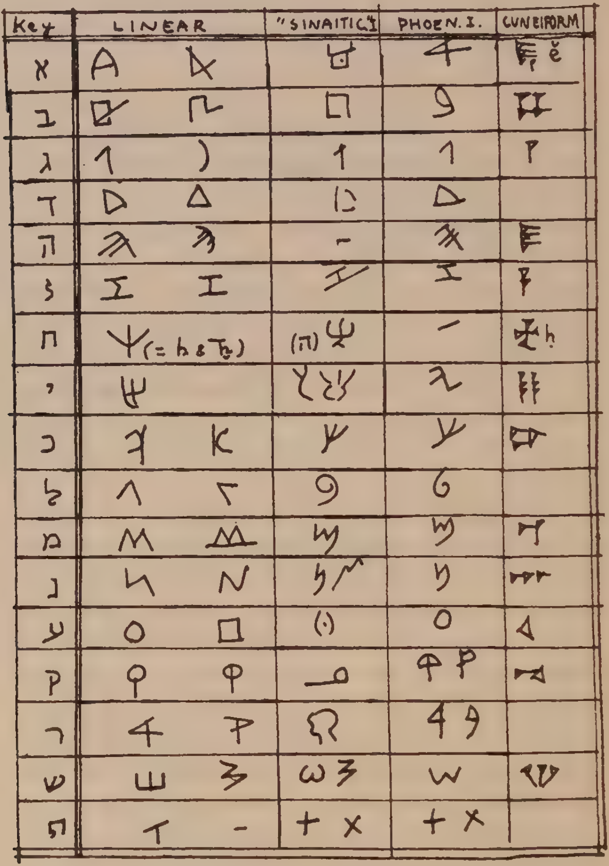

Key
LINEAR
"SINAITIC"
PHOEN. I.
CUNEIFORM
א
ב
ג
ד
ה
ו
ח
(= h & ḫ)
(ח)
ĕ
h
י
כ
ל
מ
נ
ע
ק
ר
ש
ת

Fig. 2. "Aegean" Origin of Semitic Alphabet two systems. It uses the original Linear sign for h, the Egyptian sign for h, the Linear " short Ě " for h, and a modification therefrom for vocalic 'ĕ.

Again, there is the case of the so called " covered " letters خ ظ غ *and* ض which are so characteristic a feature of the Semitic languages. Sinaitic and Phœnician did not represent them at all, whereas the script underlying Alphabetical cuneiform attempted, like South Semitic, to mark them by secondary signs.

Thus, it is apparent that the various scripts developed independently out of their common original. This precludes our classing them altogether into a homogeneous series, and hence we cannot establish the chronology of the earlier inscriptions by tracing stages in the evolution of a single alphabet. A " Phœnician " inscription, for instance, is not *ipso facto* later than a " Sinaitic," it being no longer possible to treat the former type of script as a direct outgrowth of the latter. Rather must we see in each of them an independent and parallel development from a common source.

4. **Cross-currents in the development of the "Phoenician" script.** These are represented on the diagram by the two slanting lines which intersect the Phœnician column in the earliest period. The insertion of them is tentative and somewhat theoretical, but it seemed necessary to allow for the possible influence of native Asianic and Egyptian scripts at a period when Palestine was often overrun by military campaigns from Asia Minor and Egypt. Notice especially that the diagram represents these influences as *cutting across* the " Phœnician " type, but not as surviving in it.

The second pair of cross-lines, placed in the period 1400–±1250 B.C., represents the state of affairs reflected in Dunand's inscription from Byblos (Q.S. 1935, 138), as seen from the standpoint of the " Phœnician " type. This inscription shows a hybrid script in which " Phœnician " characters are blended with elements derived from other scripts. From the standpoint of the " Phœnician " script, this means that " Phœnician " was then " crossed " by foreign influences.

5. **"Phoenician" Crossing in Sinaitic and Alphabetical Cuneiform**—" *Phœnician " crossing in Sinaitic* appears most clearly in the 'Ain Shemesh ostracon (S. III., Q.S. 1935,

p. 134), where ḥeth, 'aleph, nun (naḥaš) and mem (?) have "Phœnician" forms.

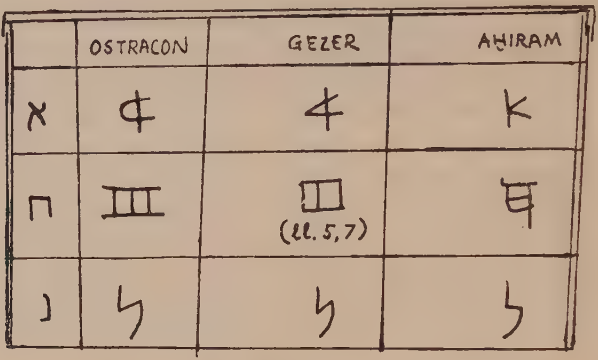


FIG. 3.

It is especially to be noticed that these forms reflect a script nearer to that of the Gezer Calendar and the Moabite Stone than to the Aḫiram inscription of the thirteenth century B.C.[1] This is shown clearly in Fig. 3, and indicates that the "Phœnician" crossing first became appreciable in the later, rather than the earlier stages of Ph. I.

Although this crossing only becomes significant in S. III. (i.e., on the 'Ain Shemesh ostracon), it is plain from the "Phœnician" *'aleph*[2] of the Tell Duweir Ewer that it had already begun, to a lesser extent, in the earlier period of S. II., or just before it. Moreover, the parallel presence of such crossing in Alphabetical Cuneiform (*v. infra*) at a date earlier than S. III., suggests that the encroachment of the "Phoenician" upon the sister-types commenced already in the period ±1400–±1250 B.C. This explains why we have placed the first indication of crossing on our diagram in this period, though indicating by the profusion of arrows that the main current of "Phœnician" influence upon "Sinaitic" dates somewhat later, i.e., in S. III.[3]

"*Phœnician*" *crossing in Alphabetical Cuneiform* is less pronounced, but still apparent. It is to be noted above all in the two forms of *samek*, viz., ṡ^1 *and* ṡ^2 The former of these is simply the " Sinaitic " set vertically, whilst the latter is a clear reproduction of " Phœnician " in cuneiform.

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[1] For this dating v. *QS*. 1935, p. 137; Dussaud, Syria 1931, p. 176. n. I; Valentin Müller, *Archiv für Orientforschung* 1931, p. 50.

[2] Even if this letter be a *daleth*, it would be of "Phœnician" type.

[3] If letter 2 in Obv. 2 is a *peh*, and letter 3 of Obv. 4 is a *resh*, these would also be "Phœnician."

Waw, ṭeth and mem similarly bear evidence of " Phœnician " crossing.

In the case of the two sameks, it seems to us that ṡ^2 was due to conscious borrowing rather than to unconscious encroachment, for it appears to have been used originally to represent a foreign sibilant in loan-words not yet completely naturalized.

In the 1929 texts from Ras Shamra there are only two occurrences of it, viz., (*a*) xii. 11 *ḫṡ*^{2}*wn*, and (*b*) xxxiii. 7 *kṡ*^{2}*'u*. In the *Hippiatric Treatise*, the word for " horse " is written *ṡ*^{2}*ṡ*^{2}*w*.

Each of these is still regarded as a loan-word. *Ḫṡ*^{2}*wn* is clearly non-Semitic, possibly Hittite (ending—*wanes*), and denotes a plant, cereal or condiment. *Kṡ*^{2}*u* " throne " (Assyr. *kussu*, Heb. כִּסֵּא etc.) is still regarded as a loan-word from Sumerian *gu. za*, whilst *ṡ*^{2}*ṡ*^{2}*w* " horse " (Heb. סוס, etc.) is considered (rightly) as an I.E. loan-word, representing a " satem " pronunciation of the word occurring in Sanskrit as *áçvas*, in Zend as *açpô*, in Greek as ἵππος, ἴκκος, in Latin as *equus*, *ecus*, and in Lithuanian as *aszvà*. The name (which should probably be pronounced *'swâs*) was imported along with the animal. It is especially noteworthy that in the contemporary Amarna letter, Knudzton 263,25 the word occurs in the curious spelling *zu-zi* and is marked with the slanting wedges which indicate a foreign term.[1]

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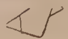
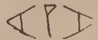
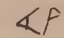
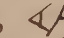
[1] Etymologically, the word means " the swift one," deriving from √ak ''be swift." (Curtius, Gr. Etym., §624.) Similarly, Hebrew, פָּרָשׁ Arabic فرس &c., derives from Hittite *paras* (Sayce, JRAS, 1930, p. 312) which comes from a rt. *par*(*h*)- of much the same meaning. According to Skeat (Etym. Dict. s.v.) the English word " *horse* " also goes back to a root meaning " *be swift*." The I.E. derivation of סוס (=סְוָס*) is admitted by Hommel, Ungnad, Hrozný and Dussaud. The final -w in the Ras Shamra *s*^{2}*sw* may perhaps represent the same element as appears as i̯ in Syriac, ܣܘܣܝܐ, Amarna *zu-zi*, and as *m* (=?*w*) in Egyptian *śmśm* (.t).

This use of a foreign letter to represent a foreign sound is paralleled by the way in which modern Semitists often use the Greek χ to represent the non-European sound of *ḥeth*. Somewhat similarly, the Ras Shamra scribes—or rather their predecessors—invented a special sign  (secondary from  = שׁ) to denote the Ḥurrian sound—ž.

The importation of s^2, and likewise of  antedates our present tablets from Ras Shamra (±thirteenth century B.C. ?), because in those tablets the original significance of these signs is already forgotten, and they are regarded merely as alternatives to s^1 and s, though traditional in certain words.

Thus *ḫṡ*^{2}*wn* of 1929 ; xii. 11 is alternatively spelt *ḫṡ*^{1}*wn* in that very text (l. 3), whilst " throne " appears as *kṡ*^{1}*'u* in 1929 : xxiii. 2,[1] and in several other places. Similarly,  does duty for pure *samek* (or *sin* ?) in genuinely Semitic words, such as *bsr* " flesh " in I.AB.

These considerations enable us to reach the conclusions : (*a*) that " Phœnician " influence obtruded itself upon Alphabetical Cuneiform at a period antedating the thirteenth century—the date of the Ras Shamra tablets ; (*b*) that this influence came partly (i.e., in the case of ṡ^2) through conscious borrowing ; (*c*) that at the time of the said tablets the originally foreign " Phœnician " character ṡ^2 had become completely " naturalized."

Accordingly, our diagram registers " Phœnician " crossing of Alphabetical Cuneiform as anterior to specifically Ugaritian script. The presence of " Phœnician " crossings in the sister-scripts affords what is perhaps our one reliable criterion for establishing an epigraphic chronology, for whilst we can certainly not group all the texts into a single series and thence determine sequences on grounds of alphabetical evolution, we *can* derive valuable and crucial information respecting relative dates of inscriptions by observing what stage of specifically " Phœnician " script is represented in the " Phœnician " crossings which they severally exhibit.

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[1] The text is fragmentary. I restore it as follows : [*k*]*s*^{1}*'u 'Elt* [*kh*]*š l'štrt* "(erect) a throne for Elath, a cathedra for Ashtareth."

The erection of such thrones as a rite recurs in R.S. 1929 xxxiii where we read of [*m*]*šbt 'elm* and *ks*$_2$*'u B'lt* and where the order is given *ššbn 'elm* " enthrone the gods." Cp. also Shalem-Shaḥar 19 : *mšbt 'Elm*. Such a מיתבא is mentioned in the Teima inscription CIS ii. 114. *Cf*. further the *gu.za* ^{d}*En-lil-la* in the menological text CT. xxxii. 41ff. and the expression *στρωνύειν θρόνους* in the Attis-cult.

Thus, for example, it is possible to date the ‘Ain Shemesh ostracon later than the Aḫiram sarcophagus by virtue of the fact that the " Phœnician " crossings which obtain in the former belong to a later stage of writing than is represented by the latter (Fig. 3). With the growth of our material, much may be expected from the careful application of this new method.

Why the " Phœnician " system should have encroached in this manner upon the sister-alphabets is an historical problem which falls outside the scope of the present essay. Clearly, it was due to some internal movement within the country and not, as might be thought, to the fresh incursions of Aegean " sea-peoples " in the thirteenth to twelfth centuries B.C. So much is plain from the fact that one of the " encroaching " letters on the ‘Ain Shemesh ostracon is, indeed, a form of *ḥeth* which was a native " Phœnician " invention (actually a secondary formation from *heh*) and which did not, in fact, exist in the Aegean prototype ! Whether the movement (or movements) in question are connected with those which created the Confederacy of Israel (Jeshurūn) out of a number of Palestinian tribes is an interesting point which may at least be mooted, if it cannot be further discussed.

The history of these early Palestinian scripts is, indeed, in many ways parallel to that of early Palestinian language and very probably reflects the same ethnic movements. Just as the several dialects " blurred and blended " until finally there was produced out of them that hybrid *Mischsprache* which we today (unscientifically) call " Hebrew," so the various scripts ultimately fused, and, subjected especially to the gradual process of " Phœnician " encroachment, produced in time a single standard alphabet.

5. **The Bal‘uah Script.** This is the script on a stele found at Balu‘ah, in Moab, in 1931 and first published by Horsfeld and Vincent in *Revue Biblique*, 1932, pp. 417–44. Our copy (Fig. 4) is taken from those scholars' tentative reading, as given, *loc. cit.* p. 425. A brief description and a photograph appeared in Q.S., April, 1934. Drioton has shown conclusively,

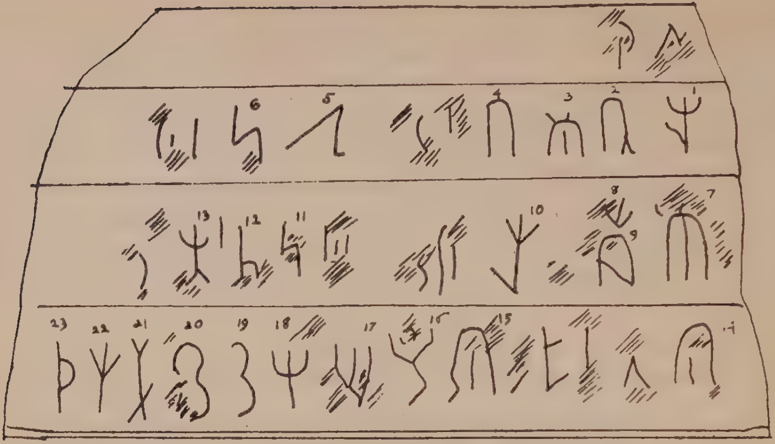


Fig. 4. The Balu'ah Inscription.

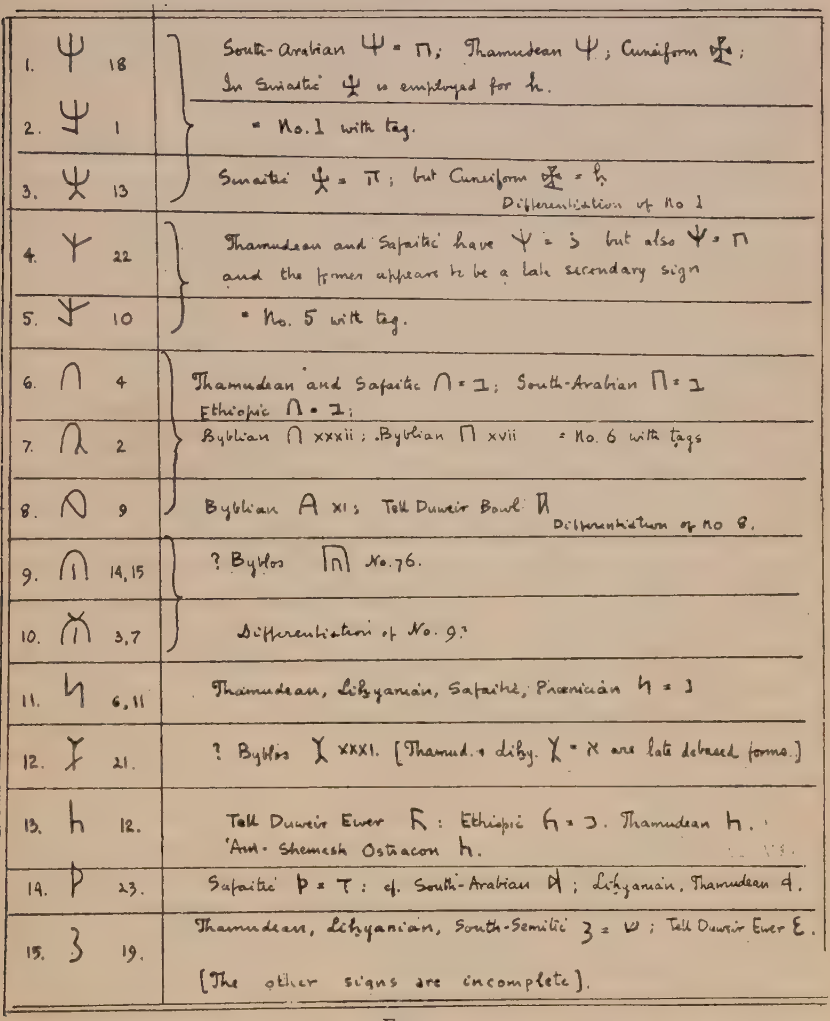
from the evidence of the symbols and costumes borne by the deities who figure in the relief which accompanies the inscription, that the stele " cannot be earlier than the beginning of the twelfth century B.C." (*Revue Biblique*, 1933, pp. 353–65 ; *cf.* Crowfoot, Q.S., 1934, p. 76.) This accounts for the position accorded to " Balu'ah Script " in our diagram.

The inscription is faint, and the reading therefore tentative. It is clear, however, that the script does not accord with any yet known, despite resemblances to Thamudean and Safaitic which appears at first sight.

The Balu'ah Script is registered in our diagram as descended from the Linear, because out of eighteen traceable characters, thirteen have clear parallels in that script. Moreover, a close examination has convinced us that the Balu'ah Script is a " penalphabetic " writing with a Linear basis.

As shown fully in our table (Fig. 5) the signs may be divided into definite groups, the members of which are in each case so many modifications of a single basic linear shape. The modifications take the form of " tags " affixed to the main sign. This recurs in several examples of Aegean writing (e.g., on the silver goblet from Ras Shamra, discussed *supra*, p. 131, Fig. 3), on the Phaestos Disc, in Venetic and in early Runic. The tags are, further, akin to those in the " Hittite " hieroglyphs and even more strikingly to the modifications of basic consonant-signs, whereby accompanying vowels are indicated in Ethiopic and in some other alphabets.[1] It is therefore probable that they have some kind of vocalic significance.

BALU'AH SCRIPT (with Comparisons).



1.	Ψ	18	South-Arabian Ψ = ח; Thamudean Ψ; Cuneiform ; In Sinaitic Ψ is employed for h.
2.	Ψ	1	= No. 1 with tag.
3.	Ψ	13	Sinaitic Ψ = ח; but Cuneiform = h. Differentiation of No 1
4.	Y	22	Thamudean and Safaitic have Y = ז but also Ψ = ח and the former appears to be a late secondary sign
5.	Y	10	= No. 5 with tag.
6.	∩	4	Thamudean and Safaitic ∩ = ב; South-Arabian ∏ = ב Ethiopic ∩ = ב;
7.	∩	2	Byblian ∩ xxxii; Byblian ∏ xvii = No. 6 with tags
8.	∩	9	Byblian A xi; Tell Duweir Bowl: Differentiation of No 8.
9.	∩	14, 15	? Byblos No. 76.
10.	∩	3, 7	Differentiation of No. 9?
11.	┐	6, 11	Thamudean, Lihyanian, Safaitic, Phoenician ┐ = ו
12.	Y	21.	? Byblos X xxxi. [Thamud. & Lihy. X = א are late debased forms.]
13.	h	12.	Tell Duweir Ewer : Ethiopic h = כ. Thamudean h. 'Ain-Shemesh Ostracon h.
14.	P	23.	Safaitic P = T: cf. South-Arabian ; Lihyanian, Thamudean .
15.	ʒ	19.	Thamudean, Lihyanian, South-Semitic ʒ = ש; Tell Duweir Ewer Σ. [The other signs are incomplete].

FIG. 5

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[1] This is, indeed, the basic principle of the vowels in all the Semitic alphabets. In Telugu, a vertical line under a letter indicates an aspiration of the consonant-sound, just as a vertical stroke over certain Hebrew consonants in late MSS. indicates the "*raphē*" pronunciation.

This is as far as we can go at present. Indeed, many may think that it is already too far in view (*a*) of the uncertainty of the characters, and (*b*) of the fact that with all the clues we have suggested, it is still impossible to decipher the text. We therefore stress the provisional character of the above remarks and point out that it is the *position* of the Balu'ah script in our diagram, rather than to our own observations upon it, to which we attach importance.

South-Semitic Scripts.—The history of the North and South Arabian scripts falls outside the scope of the present essay which is properly confined to *Palestinian* writing. Nevertheless, since they illustrate a point which has immediate bearing upon our subject, a brief discussion may be included here.

Upon examination it will be seen that the South Semitic alphabets, whilst almost certainly deriving from the Sinaitic of Serabit al Khadim, do not exhibit those " Phœnician " crossings which beset that script on Palestinian soil. Thus, whereas 'aleph, ḥeth and mēm assume " Phœnician " forms in the 'Ain Shemesh ostracon (S. III), they retain their " Sinaitic " identity in the South Semitic scripts, however much they may reveal purely internal development. It is therefore apparent that the course of development was as shown in our diagram ; the Sinaitic script was introduced into S. Palestine (*circ.* 1700 B.C.) and there subjected to gradual " Phœnician " encroachment, whilst still preserving its individuality without such " contamination " in Arabia and Transjordan, where it subsequently developed into the South-Semitic scripts.

The importance of this conclusion is that it divides the early Semitic alphabets into two great branches, both ultimately deriving from the same Linear source, viz. (*a*) the Palestinian Branch, crossed and finally dominated by the " Phœnician " type, and (*b*) the non-Palestinian Branch[1] which remained free from such crossing and preserved an independent course of development.

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[1] The " covered " letters = ذ, = خ, = ظ &c., are, of course, secondary formations. for *nūn* is not due, as might be thought to "Phœnician" encroachment, but is the natural development of the original " nahaš " sign *in a lapidary style.*

The bearing of this conclusion upon the future study of Palestinian Epigraphy is that it will cause us to look out for the possibility of " non-Palestinian Branch " inscriptions upon Palestinian soil (due to movements of bedouins), and it will enable us to explain them without overthrowing the results so far achieved.

That the " non-Palestinian Branch " was not confined at all times to a restricted area, but was indeed carried about by travellers is shown clearly by the discovery at Ur of a graffito written in this script and considered by Father Burrows, who first published it, as " considerably older than a date in the tenth-ninth century [B.C.]." (Fig. 6.)[1]

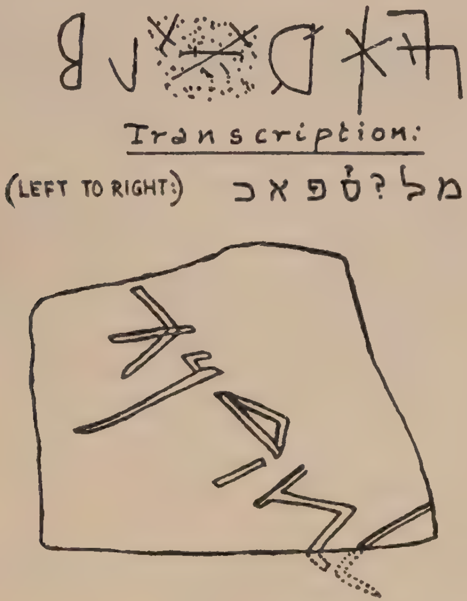

Fig. 6.

From ± B.C. Palestinian Epigraphy resolves itself into the history of the " Phœnician " type of writing. The gradual encroachment of this type upon the sister-scripts now reaches a point where it dominates and supersedes them. With this period, therefore, begins the second chapter of our study.

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[1] *Journal of the Royal Asiatic Society*, 1927, p. 801.

Postscript.—Since this paper was set up in type, further specimens of the " Sinaitic " script have been discovered at Tell Duweir, Byblus and Tell el Ajul. These are briefly discussed hereunder.

Several of the signs occurring in the new inscriptions are paralleled not only in the Serabit graffiti, but also in masons' marks found in early levels at Gezer, Tell el Ḥesy, Jerusalem and Megiddo. It is therefore no longer possible to dismiss these latter as mere geometrical patterns.

I have considered it more prudent at the present to furnish materials for the precise identification of the signs than to hazard interpretations. A complete list of parallels is, therefore, given in each case, the references being to the masons' marks figured in Diringer's excellent work, *Le Inscrizioni Antico-Ebraiche Palestinesi*, Plates XXV–XXVII. The following abbreviations are employed :—J—Jerusalem ; H—Tell el Ḥesy ; G—Gezer ; M—Megiddo. The Jerusalem specimens were found in the foundations of the Temple. Their correspondence with signs found at Byblus strongly supports the statement in I Kings 5, 32 (M.T.) that " Solomon's builders and Hiram's builders did hew them, *and also the men of Byblus* (וְחַגִּבְלִים AV. " Stonesquarers ") : and they prepared the the timber and the stones for building the House " (EV. 5, 18).

1. TELL DUWEIR POTSHERD. DATE circ. 1250 B.C. (Formerly read as Egyptian !)

1. Sinaitic 'ayin ; also underlies Ras Shamra cuneiform ; Diringer XXV. 3, 4, 13 (J) ; XXVI. 10 (G) ; XXVII. 37 ? (M.V.).

2. *Cf*. Byblus, 1, 5 ; Dir. XXV. 17b (J) ; *cf*. also XXVII. 35 (M.V.). Probably zayin.

3. Sinaitic kaph (not tav, which lacks the hook).

4. Dir. XXV. 9, 11 (J) ; XXVII. 37 (M.V.). But cp. also XXVII. 15 (G) and 'Ain Shems Ostracon, Obv. 1, 4. Since 'ayin is the plain lozenge, this may well be ṭeth.

5. *Cf*. Dir. XXVI. 31, 35 (H), and the famous Gezer sherd. *Cf*. also modification in Byblus, and form underlying RS. cuneiform. This is clearly beth.

Space indicating division of words.

6. The same as No. 1 above.

7. Dir XXV. 16 (J). *Cf.* also XXVII. 54 (Hirbet et Tubeiqa, circ. 500 B.C.). Identification difficult. Serabit and RS. analogies suggest qoph, but sense obscure. At all events, letters 7, 8 and 9 are not identical, as has been assumed.

8. Dir. XXVI. 29 (H); XXVII. 7; XXVII. 20 (G). *Cf.* form of resh at Byblus and on ‘Ain Shems Ostracon, showing that pictogram had become linearized by 1500 B.C. The letter could be r or q. The latter is perhaps, after all, preferable, since the combination -rl is rare in Semitic.

9. Sinaitic lamed.

In the first complex, if we read from left to right, ṭb “good” may be seen, preceded by a biliteral noun beginning with ‘ayin and bearing 2nd sg. possessive suffix, e.g. ‘zk “ thy strength ”—evidently addressed to a deity.

2. Tell Duweir Censer-Lid. Date circ. 1250 B.C. Painted on underside.

(Left to right).

1. ‘Ain Shems Ostracon, Obv. II, 1; Dir. XXV. 1, 6 (J); XXV. 41 (Ahab’s palace in Samaria); XXVII. 39 (M.V.). *Cf.* also later Phoenician forms. This is zayin.

Large space.

2. Serabit and Ph. gimel. Cp. Byblus, II. 2, 4; Dir. XXV. 33 (M.VI); XXVI. 28 (H); XXVII. 2 (H); XXVII. 44 (M.VI).

3. This letter is curtailed by the edge of the censer-lid. It has been compared with letters 4 and 6 on the Ewer, now thought to be waw.

If the space really indicates a division of words, z standing alone can only mean “ this is ” (Hebrew זֶה, &c.). gw will then be Hebrew *gew* “back, underside.”

3. Tell Duweir Bowl. Date circ. 1250 B.C.

Most of the letters recur at Serabit. The legend reads bšlšt followed by a word-dividing stroke (as in RS. cuneiform !), an unidentified letter and some illegible traces, variously deciphered.

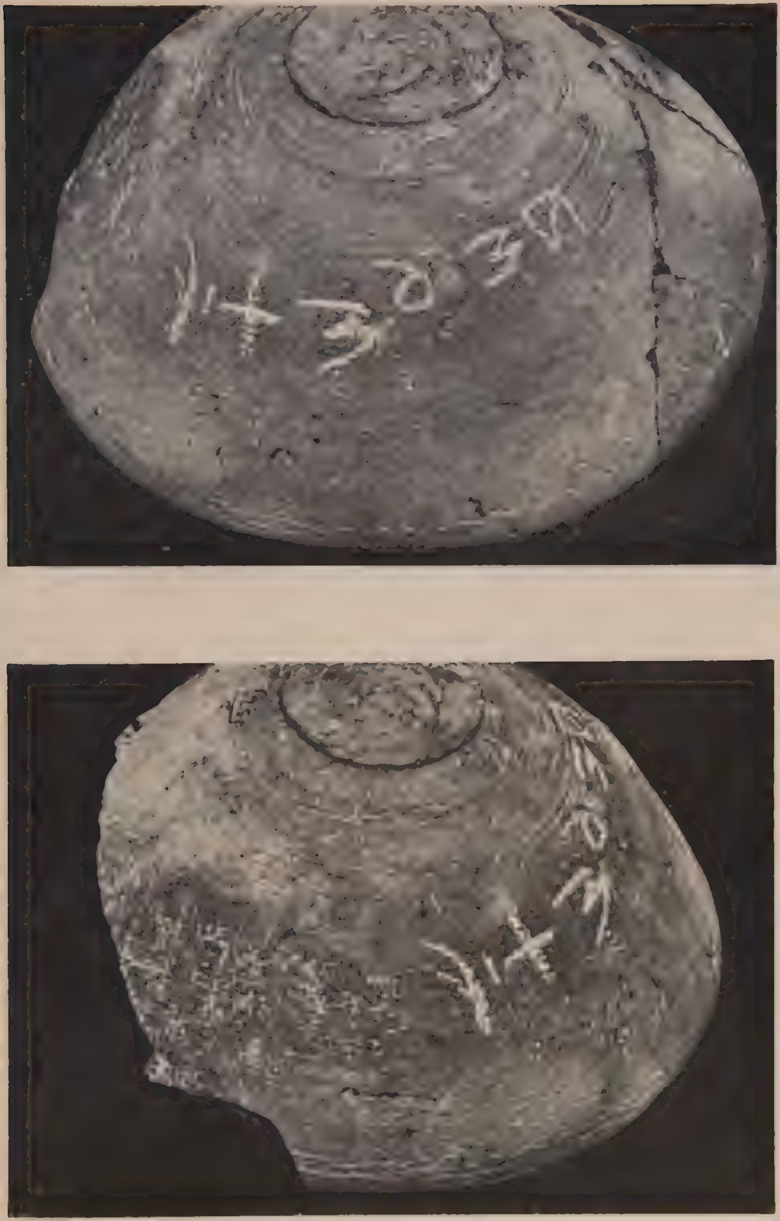
Initial b stands between that of Byblus and of Ph.I. The unidentified character may be yod or kaph, probably the latter.

The legend possibly refers to a divine triad, for Starkey has shown that archæological evidence points to the temple's having been dedicated to a triad. Cp. the three dots followed by three divine names on the Ewer. Triads are known from Byblus and S. Arabia. Cp. also the 3 reservoirs in the sacred precincts at Serabit and Tell Nasbeh, and *cf*. the allusion in the Ras Shamra text 1929, No. V. 4–5 to offering libations for the 3 tanks in the temenos (wttn uśpgt.. lšlšt mzn dr—sense after the Arabic).

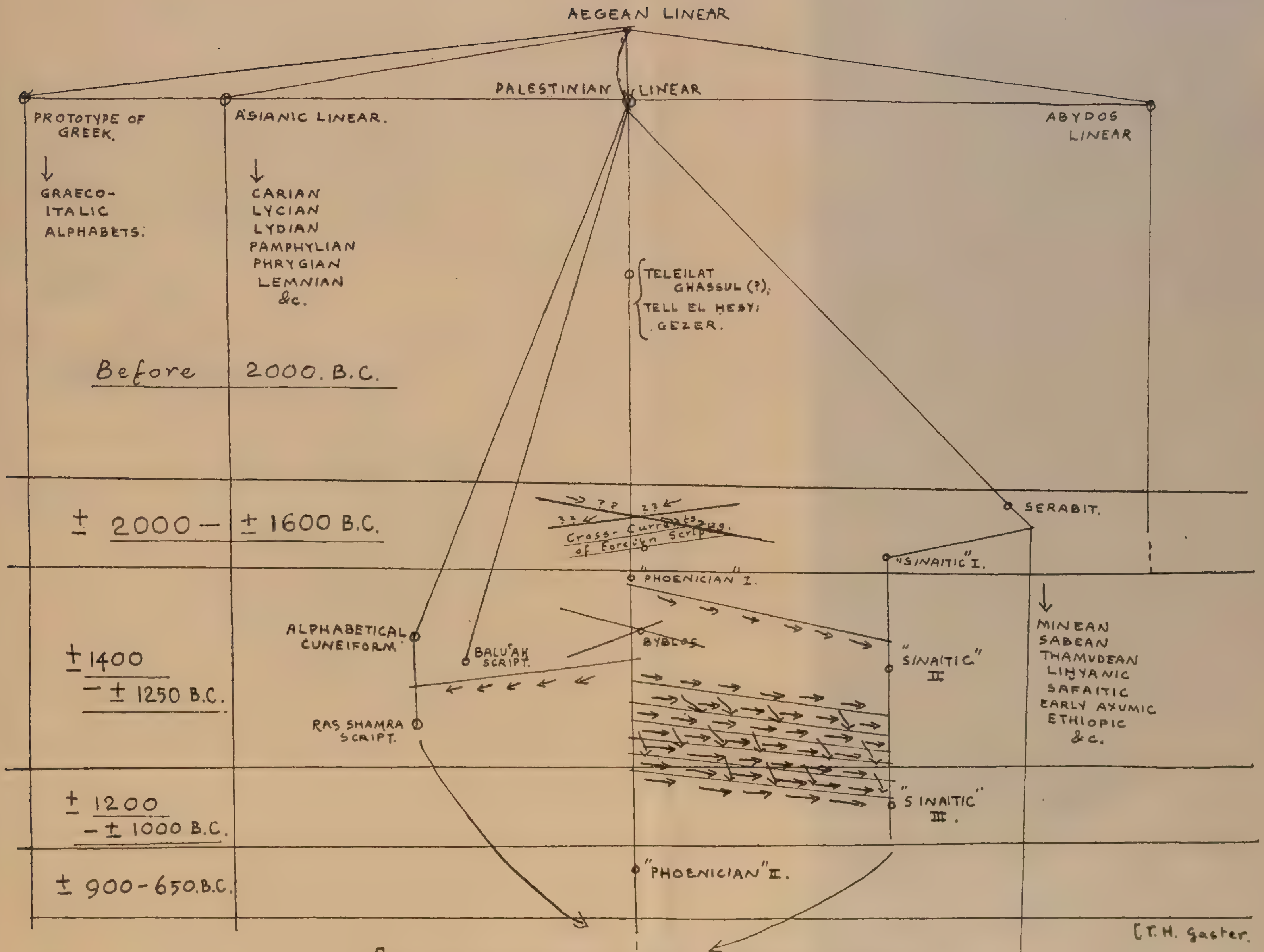
4. Byblus Funereal Plaque. Date : circ. 1500 b.c. Discovered by Dunand in 1933, and first explained by Grimme in Le Muséon, 1936, pp. 85–98.

The legend runs : (1) ank ʻz... (2) bgbl rb k(hnm) (3) ay p ṣhl ḫrṣ g(nb ?) : " I am ʻAz..., high priest in Byblus. Here is no golden vessel, O th(ief ?)."

For the name ʻAz..., Grimme quotes the much later Aza and Azbel from Byblus, but a stele from Ras Shamra already has the name ʻ-z-n. Cp. also Azanu(m) in KB. IV. 12, 2 (reign of Zabium) and CT. XXIX. 2c.5 (before Hammurabi). The Hittite text, 2 BoTU, VII. 43 mentions one *Hu-uz-zi-ia-na*, king of Zalbuwa.—For the title rb khnm Grimme cites a 3rd cent. b.c. inscription from Piraeus (Cooke, NSI. 35), but this occurs already at Ras Shamra (colophon to I AB ; axe-heads ; 1929, XVIII, 1).—In the last line, Grimme cps. Tabnith 4–5 : " Here is no object (?) of gold, neither of silver." I would also compare Eshmunazar, 5 : " Let him not seek for anything with me, for there with me there is not anything at all."—Grimme identifies ṣhl with a word ṣlḥ " dish," taking the medial h as a mater lectionis, and assuming that final -ḫ dropped out before initial ḫ of ḫrṣ. But the analogies cited by him are not convincing, being cases where proper-names are spelt slackly because pronounced slackly. I therefore identify shl with sl in RS. II AB. II. 27–8 : ṣl kṡp wn ... ḫrṣ, where it must mean " bowl." In JRAS. 1935, p.20 n.63 I have compared Syriac miṣwal " bowl," reported by Wetzstein in ZPV. 1891, p.3.

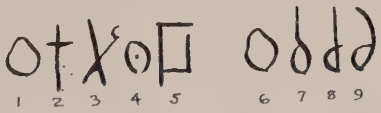
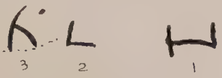
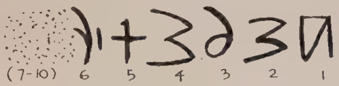
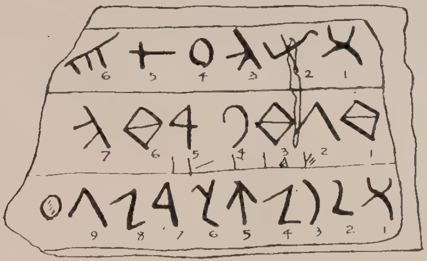
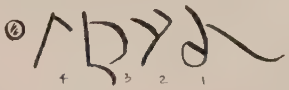


THE TELL DUWEIR BOWL



[T. H. Gaster.

Fig. I. THE CHRONOLOGY OF EARLY PALESTINIAN SCRIPTS

NEW "SINAITIC" INSCRIPTIONS		
1. TELL DUWEIR POTSHERD. -		c. 1250. B.C.
2. TELL DUWEIR CENSER-LID.		c. 1250.B.C.
3. TELL DUWEIR BOWL.		c. 1250. B.C.
4. BYBLUS.		c. 1500. B.C.
5. TELL EL AJJUL (GAZA?).		XVIIIth Dynasty.

5. Tell el Ajul Pot: Date: XVIIIth Dyn. Petrie, Ancient Gaza II. Pl. XXX.

Mr. Starkey first suggested to me that this was a specimen of the " Sinaitic " script. The characters recur at Serabit, with one exception.

Both lamed and resh face to the left; hence, read from right to left.

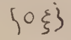
1. Serabit lamed.
2. Cp. Phœnician yod, already linearized in Byblus III, 2.
3. Serabit resh, on the way to the full linearization of Byblus and 'Ain Shems.
4. Doubtful. Resembles Phœn. gimel, but top stroke in wrong direction. I had thought this might really be a gimel, the inscr. reading from left to right, but the direction of lamed and resh are against this assumption.

The legend is preceded by a flourish (scarcely a nun) to try out the brush, and ends with a dot (abbreviation ?) as on the Byblus inscription. Initial l- indicates ownership.

I take this opportunity of appending two brief epigraphic notes:

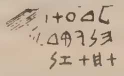
A. 'Ain Shems Ostracon, Reverse, Line 1;

I read this name S-M-'-N, i.e., SIMEON. The top of the Shin is rubbed, but discernible.



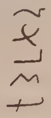
B. Ahiram Inscription: Superscription.

The second line has been variously read. I suggest that letter 4 is a ligature of peh and qoph. The word will thus be y-p-q-d, and we may render: " Take note ! . . . Behold, there is a warning for thee hereunder." This refers to the warning against rifling the tomb contained in the following inscription.



I should also like to take this opportunity of calling attention to an hitherto unnoticed specimen of " Tell Duweir " script occurring on a broken seal photographed by M. D. J. Jermakov of Tiflis and reproduced by Zakharov in *Archiv Orientální* 1935, Pl. VI. fig. 7 (facing p. 36).

The seal, only the left half of which remains, images a winged man standing naked. To the left of the figure runs the following inscription written vertically :



It will be seen at once that, from left to right :

Sign 1 is the nun (nakhash) of the Tell Duweir Ewer.

Sign 2 is the third from left on the Tell Duweir " Nefer Neferu " inscription, resembling the Sinaitic kaph.

Sign 3 is the second from left on the Tell Ajul Vase. It may be a reversed gimel, or possibly a peh.

Sign 4 is the shin of Ewer and Bowl.

Sign 5 looks at the first blush like a tav, but it may also be the second sign from left on the " Nefer Neferu " inscription, for note the seemingly curved top.

I cannot yet make sense of the inscription. The direction of the shin would indicate that the legend reads from left to right, if indeed it is to be read horizontally. Alternatively, it may read vertically from 5–1.

The seal is said to come " probably from Asia Minor," but no more precise information is given. If this be the true provenance, it is interesting to find the " Tell Duweir " script in the North. This will have a bearing on its adaptation to Ras Shamra cuneiform. Also, it is interesting to find this script used in glyptic art.

I hope to come back to this seal at a later date.

THE TABGHA MOSAICS

Tabgha, or et Tabghah, lies on the western shore of the Sea of Galilee, less than two miles to the east-south-east of the site of Capernaum, which is now generally identified with Tell Hum. It is well known to readers of this Journal that, in 1932, Father J. Tapper, of the Hospice at Tabgha, and some German archæologists, carried out some excavations near Tabgha which resulted in the discovery of the foundation of an ancient basilica and a fine mosaic floor. In the " Quarterly Statement " for July, 1933, there appeared this note : " The Tabghah mosaics recently unearthed in the Tabghah basilica between Tiberias and Capernaum constitute another interesting piece of evidence relating to the early development of Christianity. Dr. Schneider, in a recent lecture on the mosaics, expressed the opinion that they belonged to the second half of the fourth century."[1]

This little basilica of " The Loaves and Fishes " is situated in a field close to the shore of the lake, and was built as a memorial of the miracle of the loaves and fishes. In the year A.D. 386 it was visited by Etheria, from Galicia, in Spain, who made a pilgrimage of some years' duration to Palestine, Syria and Egypt. Fortunately she kept a diary (written in rather slipshod Latin). Whilst visiting Heptapegon (seven springs), a spot between Tabgha and the ruins of Capernaum, Etheria wrote : " There is a fertile field near the Lake of Galilee with plenty of pasture and many palm trees, and nearby seven springs, from each of which gush copious streams of water, and in this field the Master fed the people with five loaves and two fishes."

" Indeed the stone on which the Master placed the bread has been made into an altar, and from this stone visitors chip off pieces for their healing and all benefit thereby."

The above answers closely to the condition of Heptapegon at the present day. A considerable area was purchased some years ago by the German Verein vom Heiligen Lände, whose representative on the spot is Father Tapper. He and others knew of the above passages in Etheria's diary, and in 1932 excavations were undertaken by some German archæologists. They soon came upon the foundations of an ancient basilica, and, digging deeper, discovered a floor in mosaics revealing beautiful pictures of the local flora and fauna, though, alas, several of the pictures were badly sagged. It was known to the investigators that the church mentioned by Etheria was in existence in the sixth century, but that it had entirely disappeared, ruined, it is believed, by an earthquake in the next century, and had since been completely lost. Father Tapper, anxious to prove the existence or otherwise of the altar stone mentioned above, dug at the spot where the altar must have stood, and to his amazement, came upon a large rough stone which clearly showed signs of having been chipped. Beside it lay some small stone pillars on which it probably stood, whilst behind it was found a mosaic picture showing a basket of loaves, each loaf having on it a cross, and on each side of the basket was represented a fish.

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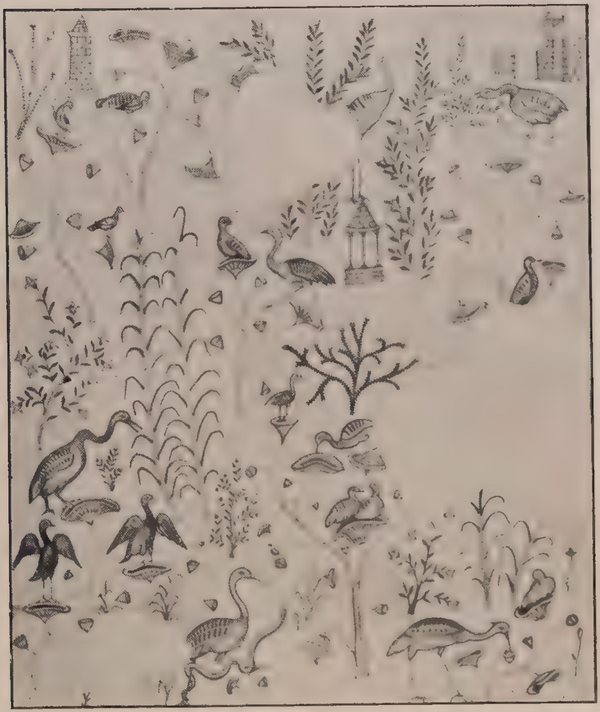
[1] See also " Biblica " 1932, p. 293.

Father Tapper's aim was to preserve the mosaics, but this involved considerable outlay, as all the pictures required taking up and repairing, from the reverse, by an expert; the floor required levelling and relaying and the whole wanted roofing in. All authorities agreed that the mosaics, attributed to the fourth century, should be saved, and it is understood that the Government of Palestine made a grant of £100 for the purpose. But, clearly, a good deal more money was required and Father Tapper began his appeal for donations. Meanwhile he fenced in the discoveries and covered the mosiacs with a deep layer of fine ashes and sawdust. Early in 1935 he opened his heart to a Scots friend, much interested in archæology, who was a guest at his little hospice which has been so well described by Mr. H. V. Morton, and this friend agreed to raise a sum of £400, but, as this could not be done in a day, he urged Father Tapper a few months later to proceed at once with saving the mosaics before another winter's rain took further toll of them, and he promised to be responsible for this sum, although his circumstances hardly permitted of this.

Father Tapper lost no time and soon secured the able



THE TABGHA MOSAICS

services of Dr. Alfons M. Schneider, as archæologist, and of Dr. Bertrand Gauer, of Dusseldorf, as mosaic expert. All the mosaics, after careful preparation, were lifted and removed to safety for intricate repair. The floor of the little basilica was levelled and laid in re-inforced concrete. On the foundations of the basilica tufa walls were raised high enough to carry a roof, and the building has now, to a certain extent, regained what is believed to have been its early appearance. The mosaics have lately been relaid in exactly their original position. A good deal of work has still to be done internally, although the building is not to be used as a church. Then it is proposed to build a stone wall round the outer area and to lay it out as a garden. As usual the expenditure has exceeded the estimates and more money is now required.

Last year Dr. Schneider, whose name has been mentioned above, published a book on the whole work. He has kindly allowed an English translation to be made, and brought up to date, and it is hoped that this will be on sale in England early in 1937. It will show pictures of most of the mosaics, which resemble, in some respects, the fourth century mosaics in Santa Costanza in Rome. Posterity will owe a deep debt of gratitude to Father Tapper for having saved them.

If any reader is inclined to help, donations can be addressed to Major A. A. Gordon, Bridge of Allan, Stirlingshire, who will gratefully acknowledge the same and transmit them in due course to Father Tapper.

C. F. C.

THE TREPHINED SKULLS FROM LACHISH

By Rev. J. W. Jack, D.D.

The interesting examples of trephining (or making a hole in the skull), which are seen in three well-preserved specimens found recently in the large collection of skulls at *Tell Duweir* (Lachish), not only raise the problem of ancient surgery, but probably involve deeper questions of magical significance. Similar curious cases of holing of the skull have been found in large numbers in widely scattered parts of the world, and cannot all have had a merely surgical purpose. Since they were first noticed in 1872 by the French physician Prunières, in the neolithic caves of Central France, they have been discovered in strata of the same age in Denmark, Bohemia, Italy, Portugal, Britain, North Africa, and even the two Americas.[1] The cases, indeed, are so numerous that trephining seems to have been a common operation in ancient times. In a mound in France, containing 120 skeletons, no less than forty had trephined skulls. The Yale expedition to Peru, South America, in 1914 and 1915, which found 250 Inca skeleton crania in the caverns north-west of Cuzco, discovered that 18 per cent. had been trephined, and one had as many as five holes in it.[2] The examples recently found at Lachish only add to the already long list. The methods employed in ancient times have been the subject of much speculation and argument. They seem to have ranged from attrition with flint or metal implements to drilling and cross-hatching (*cf*. the two different types in the Lachish specimens). In some of the cases the skulls have evidently been trephined while the individuals were living, as may be deduced from the smooth and rounded edges of the hole, showing that healing, to some extent at least, had taken place, though in numerous instances, especially where a saw

[1] Broca, *Mémoire sur la trépanation du crâne et les amulettes crâniennes à l'époque néolithique*, Paris, 1877.

[2] Duncan, *Prehistoric Man*, p. 76, Boston, 1931.

had been used, death probably ensued in two or three weeks. In other cases, however, it is clear that the operation had not been carried out till the individuals were dying or till after death, as there are no signs of reparation of the cut portion (the edges being sharp), and this aspect of the matter adds to the difficult problem of discovering the real motive.

In many cases of the living, it may be granted that trephining was adopted without any magical import, simply to deal with head injuries such as those received by accident or in battle. In the *Hippocrates Collection*, which is a treatise containing Greek medical writings dating from the fourth century B.C., there is a section on " Wounds of the Head," which includes a description of trephining. But ages before this, there were undoubtedly primitive surgeons in existence, who sought to heal various parts of the body by operation. In prehistoric times, before metal was discovered, their outfit would consist of flint saws, knives, scrapers, chisels, and borers. It is known that their operations embraced amputations of finger, arm, and other parts, correction of deformities, cauterization, scarification, and setting of fractures (remarkable skill was shown in this last). There is no reason to doubt, therefore, that in several cases of trephining, the sole object, like that of modern surgeons, was simply to heal injuries, or remove diseases affecting the head. The operation must have been a very serious one, as Dr. T. Parry Wilson has pointed out in his article on the matter,[3] especially when the surgeon had no metal hard enough for a saw and was limited to a flint one.

At the same time there can be no question that in numerous cases trephining was adopted with a magical purpose, in the hope of removing general illness or bodily disease. The hole in the skull was intended to permit the expulsion of the evil spirit which had introduced itself into the body and was believed to be the cause of the disorder, in accordance with the theory of uncivilized or superstitious people that maladies, whether bodily or mental, were due to demoniacal possession. For the same reason trephining is a common practice still—or was until quite recently—among the natives of Polynesia, Montenegro, Peru, and Bolivia ; and there are untutored or barbarous tribes, both in the Old and the New Worlds, who

[3] *Man*, October, 1936.

have the same end in view in applying massage, suction, bleeding, or burning. In all such cases the result of the operation, if successful (as it often is, though always empirically) is attributed to the departure of the disturbing demon. In ancient times especially, we can understand that trephining would thus be in vogue for various ailments. Headaches would probably be the most common. Convulsions, delirium, epilepsy, lunacy, and similar diseases would be treated in like, manner. After the evil spirit had taken its departure, the opening was sometimes closed by means of rondelles or patches evidently taken from some other head.

Apart from this aspect, it is not improbable that in some cases of trephining in ancient times the operation was connected with a religious initiation, as observers have found among some sections of the great Berber race in North Africa, especially the Kabyles. Its object with such tribes seems to have been to give the soul freedom of communication with external supernatural powers, or perhaps to offer to the gods a vital part of the body as a substitute for the whole person—an idea still to be found in certain religious sects which mutilate their bodies (nails, hair, bones of finger or toe, &c.), in order to offer something which they regard as of value.

There is little doubt that trephining, where it was performed upon the dead, had as one of its objects the furnishing of a special opening by which the soul or spirit could escape from the body. The living tenant was supposed to reside in the skull (which perhaps accounts for the phrase " to swear by the head," Matt. v, 36), and it was conceivable that after death it might linger there unable to find its way out. It is related by Sir J. G. Frazer that, among some tribes in the Central Provinces of India, a son would sometimes strike his dead father's skull seven times with a log on the funeral pyre in order to open his crown and so let his soul escape.[4] It is on the same magical principle that the Karens of Burma, the Basutos of South Africa, and other peoples will sometimes make a hole in the thatched roof of the house when someone has just died within. In some parts of Europe, even in England and Scotland, it is said to be still customary with some people after a death to open the doors and windows, in order to let the soul fly freely away. At all events, in ancient times, large numbers of people in all parts of the world seem to have believed that the soul or spirit continued to be imprisoned in the skull, unless an opening was made through the hard bony substance for its departure. Perhaps this was the reason for trephining in the two Lachish examples which contain a rectangular aperture without any signs of reparation.

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[4] Frazer, *The Fear of the Dead,* I, p. 179.

Still another object of trephining seems to have been to secure amulets of a valuable and efficacious nature.[5] The rondelle or detached piece of skull bone was perforated and worn round the neck or on the breast as a prophylactic against disease, danger, or the malign influence of evil spirits. It is probable that such bony amulets were used as curative agents in epilepsy and other convulsive disorders, and perhaps in persistent headache. In all cases the value of the amulet would no doubt depend on the rank of the individual whose skull was used ; and perhaps this may account for the hypothesis, believed to be correct, that trephining was reserved for the skulls of individuals who, by reason of their knowledge or temperament or social status, were considered to be in possession of a superior nature or in direct communication with the supernatural world.

In view of the prevalence of such ideas in ancient times, extending back even to prehistoric ages, it is difficult to come to any conclusion as to the purpose of the trephining discovered at Lachish. The three specimens are unique, being the only ones discovered so far in Palestine or the Near East, and two of them, strange to say, correspond in their cross-hatching to some of those found as far away as Peru. But while they may be cases of mere surgical operation with a simple therapeutic intention, the question is worth considering whether they may not have had a magical bearing of some kind. Dr. Wilson Parry states, in regard to skull No. 1, that " towards the posterior inferior angle of the left parietal on this skull is an incision 3.1 cm. long, indicating that the primitive surgeon had thought of placing the operation on the other side of the skull, but decided on second thoughts to do it where it now lies."[6] This fact tends to show (though the

[5] Goblet D'Alviella, *Croyances, Rites, Institutions*, II, p. 381.

[6] *Man*, October, 1936, Section 234.

proof is not definite) that the object of the operation was not of a merely therapeutic kind. We know how deeply superstitious practices had infected Judah by the beginning of the seventh century B.C. It is true, there are no direct evidences among the Semites of trephining for magical purposes, but we have abundant information nowadays to show that such traditions and practices were world-wide, being found in almost identical form in regions far distant from each other ; and, as a matter of fact, the great mass of the Jewish people, when allured by the superstitious tendencies of other races, troubled themselves little as to whether these were Semitic or not.

THE TROGLODYTES OF GEZER[1]

By G. Ernest Wright
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It is well known that when Macalister excavated Gezer some thirty years ago, he found the surface of the tell honeycombed with caves, most of which had been used originally as dwellings and later as tombs. In one of these caves (Cave 2 I) were well over a hundred skeletons, some fifty of which belonged to a small-boned, long-headed people, who had, apparently, cremated their dead. Over these remains was an even greater number of inhumed skeletons belonging to a much larger, broad-headed people.[2] Macalister naturally assumed that these small, long-headed skeletons belonged to the earliest occupants of the tell, who had dug out the caves and lived in them. The large, broad-headed people, on the other hand, he believed to be the first Semites, who displaced the earlier " Pre-Semitic " folk, built their dwellings on the surface of the rock, and used the caves for the burial of their dead.[3]

This interpretation of the situation has been generally accepted, and many theories have been woven about these " Pre-Semitic " Troglodytes. Kittel, for example, in his *Geschichte des Volkes Israel*[4] went so far as to suggest their identification with the Biblical Horites, the basis being the supposed etymology of the word.[5] In the minds of most scholars the whole picture of early Gezer has been very obscure indeed, especially since the chronology of the period has been so uncertain.

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[1] This article is an expansion of a paper which was read before the meeting of the American Oriental Society in New Haven (April, 1936). For many suggestions during its preparation, the writer wishes to express his gratitude to Professor W. F. Albright. The following abbreviations should be noted: *AASOR—Annual of the American Schools of Oriental Research*; *AAA—Annals of Archæology and Anthropology*; *BASOR—Bulletin of the American Schools of Oriental Research*; *G*—Macalister, *The Excavations of Gezer*; *QS—Quarterly Statement.*

[2] For an excellent description of these remains, see the account by the excavator's father, Professor Alex. Macalister, in *QS*, 1902, 353 ff.

[3] *G* I, 6–7; *QS*, 1904, 108 ff.

[4] Fourth edition, pp. 38-9.

Within the past three years, however, the Chalcolithic and Early Bronze Ages have emerged from much of the obscurity which formerly surrounded them. The excavations of Teleilāt el-Ghassūl, Megiddo, and Beth-shan had clarified the picture considerably by 1935.[6] But the recently published reports of excavations of Jericho and Ai have furnished materials badly needed for the determination of the sequence of the various cultures.[7] When all the available material is now surveyed, the following may be said to be rather definitely established: In the first place, the Jericho excavations have pushed back the much disputed Ghassulian culture to the fourth millennium.[8] In the second place, four phases are now clearly distinguishable within E.B. The first phase is separated from the Chalcolithic by the appearance of certain new forms, the most characteristic of which are an inverted-rim bowl, an undecorated ledge-handle, an ear-handled juglet, a flaring-necked pitcher of a peculiar type, and a neckless jar with a ridge just below the rim[9]—most of which can be shown to have come into the country from the north, probably from Syria and Anatolia. Characteristic of this period is the fine painted pottery, so characteristic in fact that we might call it "The Painted-Pottery Culture" of Palestinian E.B.[10] This painted-pottery phase is well defined since in the stratigraphical excavations of Jericho, Beth-shan, and Megiddo it falls immediately before pitchers of a type well known from the Syrian examples found by Petrie in the Royal Tombs of the First Dynasty at Abydos.[11] In Palestine these appear quite suddenly along with typical E.B. platters, stump-base vessels, and pushed-up ledge-handles, marking the beginning of a second phase whose date may be given as approximately the twenty-ninth century, if we adopt the minimum chronology for the First Dynasty.[12] The painted-pottery phase, then, falls in the late Predynastic period immediately before the First Dynasty.

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[5] Scholarly opinion now identifies the Horites with the Hurrians: see Speiser, *AASOR*, 13, 26 ff. and Albright in the George L. Robinson memorial volume, *From the Pyramids to Paul*, 9 ff.

[6] See Mallon, Koeppel, Neuville, *Teleilāt Ghassūl*; Engberg and Shipton, *Notes on the Chalcolithic and Early Bronze Age Pottery of Megiddo*; and FitzGerald, *Museum Journal*, 24 (1935), 5 ff.

[7] Garstang, *AAA*, 22 (1935), 143 ff. and Mme. Marquet-Krause, *Syria*, 16 (1935), 325 ff. The first attempt at correlating the Beth-shan, Megiddo and other important deposits was made by Albright in *Journal of the Palestine Oriental Society*, 15 (1935), 193 ff. But at that time there were still important groups which could not be dated with any degree of certainty. The new Jericho and Ai materials have provided many of the missing links, so that it is possible to trace the history of many individual pottery forms for the first time, and distinguish clear-cut phases in which every E.B. deposit can be fixed. The writer has attempted a survey of all the available material, and, in a preliminary way, has presented it with a series of charts in *BASOR*, 63 (1936), 12 ff., to which frequent reference will be made during the course of this paper. There, the E.B. phases were given Greek letters as provisional names in order to avoid the terms E.B. I, II, III, in whose use there is so much confusion.

[8] See *AAA*, 22, 147 ff., 163 ff., and pls. 39–45. This means the complete vindication of the position of Albright, who, practically alone, has held out for the early date of this culture, while Vincent, Mallon, and others have brought it to an end as late as the beginning of M.B. II.

A third phase is characterized by the native potter's imitation in clay of certain Egyptian stone vases during the early Pyramid Age, and by the sudden appearance and disappearance of a beautiful carinated ware, which was imported from Syria and is called in Palestine the Khirbet Kerak ware from the site where it was first found. These clay imitations of stone vases and several Egyptian stone bowls from a sanctuary at Ai roughly synchronize this phase with the Pyramid Age.[13]

Finally, there is a fourth or transitional phase which has not been clearly recognized thus far. This is represented by certain deposits at Megiddo, Bethel, Beth-shemesh, Jericho, Tell Beit Mirsim, the Wādī Ghazzeh, and several sites in Moab and Edom, where typical forms of the other phases either have died or are dying out, and new forms characteristic of subsequent periods are appearing. Among these wares are imported vases, typical of the First Intermediate Period in Egypt, which give a chronological peg for the phase.[14]

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[9] These are forms A–I c, II a, VI a, b, and c, IV a, VIII a in *BASOR*, 63, 16. Other characteristic forms are shown on the same chart.

[10] The finest collections of this painted pottery are those from Tomb 3 of Ophel (*Jérusalem sous terre*, pls. 9–11) and the Ai necropolis (*Syria*, 16, pls. 57–8), pinned to this phase particularly by the Jericho and Beth-shan materials—*cf. BASOR*, 63, 13.

[11] See form B–IV d in *ibid.*, 17. *Cf.* also p. 14.

[12] *Cf.* forms B–III a and b, IV b, I e, respectively in *ibid.*, 14. For the minimum chronology, see Albright, *op. cit.*, pp. 209 and 210 n. 48.

[13] *BASOR*, 63, 15 and 21.

Thus the Chalcolithic and Early Bronze Ages of Palestine are no longer the dark age that they were as recently as three years ago, and, thanks to Macalister's careful and detailed recording, we can now approach the problem of the Gezer Troglodytes with some expectation of positive results. The immediate problem before Macalister after the discovery of the Crematorium (Cave 2 I) was that of assigning a pottery horizon to each of the two peoples whose remains were found. Accordingly, he separated the ware of the cave in question into two groups, " Pre-Semitic " and " First Semitic " pottery, though his only criterion was admittedly the comparative roughness or coarseness of paste and form.[15] In the light of our present knowledge a study of this important deposit is very instructive. When the individual forms of the " Pre-Semitic " and " First Semitic " groups are compared even in the most casual manner, the conclusion is now inescapable that this is an homogeneous group of pottery.[16] Comparison with other deposits makes this homogeneity certain, for the deposit represents a series of types belonging to the first phase of E.B., almost every form of which can be duplicated among the wares of Tomb 3 of Ophel, the Ai necropolis, Jericho " E.B. 1," and other painted-pottery groups.[17] Most noteworthy are the plain ledge-handles, inverted-rim bowls, single-ear bowls, painted bowls, loop-handled cups, ear-handled juglets, a jug with false-spout handle, and other jugs with either lug-handles or ledge-handles or both, all of which are typical of the period.[18] The pottery of Cave 2 I, then, is an homogeneous series from the first phase of E.B.

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[14] For a more detailed description with references, see *loc. cit.*

[15] *Cf. QS*, 1902, 356 ; also *G* II, 131.

[16] This pottery is conveniently grouped together in *QS*, 1902, 356 ff., figs. 20–22 and pls. 9–11 (see *G* II, 135 fig. 305 ; 138 fig. 308 ; 152 figs. 314–15 ; 153 fig. 316 ; and 154 fig. 317). Comparison of *QS*, 1902, pl. 9 with pls. 10–11 (*G* II, fig. 305 with figs. 316–7) shows that the bowls, the cups, and the juglets are the same in form and two periods can scarcely be postulated for them.

[17] For the Jericho wares, *cf. AAA*, 22, pls. 36–9. Other comparative material from the same period comes from Tell el-Ḥammeh (*American Journal of Archæology*, 39 [1935], 321 ff. and pls. 37–8), Tell Ḥammām and 'Adjlūn (*Teleilāt Ghassūl*, pls. 61 and 64), and Tell en-Naṣbeh (Badè, *Excavations at Tell en-Nasbeh*, 1926–7, 44).

The other " Pre-Semitic " and " First Semitic " tomb-groups can be dated with almost the same precision. Cave 3 III, according to Macalister, " is an illustration of a common case—the adaptation for sepulture in a later period of a cave used for occupation in an earlier."[19] The pottery is of the same period as that from the Crematorium.[20] The same can be said for Cave 19 I, whose deposit was sealed by the Inner Wall which was built directly over it. In this cave the burial was made in an enclosure similar to those of the later burials in the Crematorium.[21] Cave 27 I was also sealed by the Inner Wall, and its burial deposit dates from the same period as those of the above caves.[22] Tomb 42 is an homogeneous deposit of what Macalister considered to be a very valuable series of early "First Semitic" pottery,[23] and it also is to be dated in the first phase of E.B. The thumb-indented ledge-handle, the high-loop-handled cups, and the spouted jar with lug-handles prove that the deposit cannot be later than this phase.[24] The ear-handled juglet, the peculiar spout, and the carinated bowl prove that the group can scarcely be earlier.[25] Tomb 56 was disturbed by an interment in L.B., but the early pottery represents, according to Macalister, " well-established First Semitic types."[26] Now we can say that it is a fine group of well-established types of the first phase of E.B.[27]

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[18] See *BASOR*, 63, 17 : forms A–I c, II a, b, and d, V a, VI a and c, VII b and c for the types in question. An interesting form is the chalice (*QS*, 1902, pl. 10:17—*G* II, 153 fig. 316:17. For an enlarged drawing, *cf. Bulletin of the Palestine Museum*, No. 3, pl. 3:2) which has also been found at Jericho and Ai in appropriate sequence (*cf. AAA*, 22, pl. 36:4 and *Syria*, 16, pl. 58:17).

[19] *G* I, 77. The pottery is in *G* III, pl. 16.

[20] Decisive for this dating are the pitcher with flaring neck and the neckless jar with a bell-spout and a small plain ledge-handle (*ibid.*, pl. 16:2 and 4). The Beth-shan, Jericho, and Megiddo deposits would confine this type of pitcher to this phase alone (*cf. Notes*..., 23 fig. 7:F ; *AAA*, 22, pl. 36:3 ; and *Museum Journal*, 24, pl. 5:12–13).

[21] *Cf. G* I, 107 ff. The pottery is pictured on p. 108 fig. 37 : several examples of " band-painted " ear-handled juglets of the same type as those found in Tomb 3 of Ophel—see *BASOR*, 63, 16 : form A–VI a. Two store jars are said to have come from this cave also : *G* II, 132 fig. 302, and 134 fig. 304. The latter is a type of which there are no published parallels. The former is a rather common type of Jericho, Tomb A : *cf. AAA*, 19, pl. 6:15–16, which may mean a second burial in the cave in the third phase of E.B. The history of this particular jar-form, however, eludes us at present.

[22] *Cf. G* III, pl. 28 and pl. 29:1–2. The juglets, loop-handled cup, and inverted-rim bowl together ensure this dating : *cf. BASOR*, 63, 16 : forms A–VI b, V a, and II a, respectively. The loop-handled cup seems to be a late Chalcolithic form (it is Megiddo type 24 of Stages VII–IV) which becomes very characteristic in the first phase of E.B., after which it rapidly disappears, immediately losing its high loop-handle for the more conventional rounded form (*cf. ibid.*, 17 : form B–V a).

The above deposits all accompany interments. Caves 11 II, 15 I, and 30 II, on the other hand, contain pottery which belonged to their original inhabitants. Cave 11 II contains " the ordinary contents of a Troglodyte abode," Cave 15 I the same (though disturbed for burial and then for a cistern in M.B. II, contemporary with Tell Beit Mirsim, stratum E), while Cave 30 II is "an undisturbed Troglodyte dwelling."[28] Interestingly enough, however, the pottery is indistinguishable from that of the above tomb deposits and must also be dated within the first phase of E.B.[29]

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[23] *G* I, 318–19.

[24] See *G* III, pl. 79:5–25. At Megiddo, Beth-shan, and Jericho the thumb-indented or scalloped ledge-handle disappears during the course of the first phase of E.B. The spouted jar is Megiddo type 23 C of Stages VII–IV, which also appears at Beth-shan though only in level XIV.

[25] *Loc. cit.*, nos. 21, 18, 15, respectively. Similar spout-forms appear in the Crematorium (*G* II, 153 fig. 316:3) and the Ai necropolis (*op. cit.*, pl. 58:4). For similar bowl forms, *cf. ibid.*, pl. 58:22; *Museum Journal*, 24, pl. 5:18 (level XIII), and *AAA*, 22, pl. 30:20 and pl. 39:10, which confine the form to the first and second phases of E.B.

[26] *G* I, 320–1.

[27] See *G* III, pl. 79:36; 80; 100:19–28. Pl. 80:18 is an interesting form which also appears in the Ai necropolis: *op. cit.*, pl. 58:2 and 7.

[28] *G* I, 83, 86 ff., and 143. Cave 11 II, however, is listed as "First Semitic" in *G* II, 153, indicating a change of mind on the part of the excavator after his dating and description in *G* I, 83 f.

[29] Datable pieces in Cave 11 II are a fragment of a divided handle, and a portion of a painted bowl (*G* III, pl. 19:5 and 8). Those in Cave 30 II are a loop-handled cup and two sherds of " band-painted " ware (*G* III, pl. 44:2, 5–6). Cave 15 I gives much the best indication of the ceramic culture of the original cave dwellers. Plain, wavy, and scalloped ledge-handles (a mixture possible in this phase alone: *cf.* Megiddo type 14).

In Cave 6 I was found " one fine Troglodyte jar," representing in Macalister's mind one of the earliest forms.[30] Its closest affinities, however, are to forms in the second and third phases of E.B. and thus it is probably later than any of the pottery so far discussed.[31] These large pithoi are made of much coarser paste than most of the smaller forms, and Macalister's confusion was quite natural. Cave 16 I was a small oval chamber which was perhaps never used as a dwelling. In any event the burial was probably made in the third phase of E.B.[32]

The above groups are the most important deposits of early pottery at Gezer. If now the results are placed in tabular

GROUP	MACALISTER'S DATE	PHASE IN THE E.B.
CAVE 2 I	FIRST SEMITIC	FIRST
CAVE 3 III	FIRST SEMITIC	FIRST
CAVE 6 I	TROGLODYTE	SECOND OR THIRD
CAVE 11 II	TROGLODYTE	FIRST
CAVE 15 I	TROGLODYTE	FIRST
CAVE 16 I	" TROG. & FIRST SEM."	THIRD
CAVE 19 I	FIRST SEMITIC	FIRST (HOMOGENEOUS ?)
CAVE 27 I	" TROG. & FIRST SEM."	FIRST
CAVE 30 II	TROGLODYTE	FIRST
TOMB 42	FIRST SEMITIC	FIRST
TOMB 56	FIRST SEMITIC	FIRST

Fig. 1.

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several examples of loop-handled cups, an ear-handled juglet, and a fine example of an " hole-mouth bowl " of Megiddo type 13 whose plain ledge-handles would confine the form at Megiddo to Stages V–IV, all confirm the dating (*G* III, pls. 20–3, and *G* I, 91 fig. 31).

[30] *G* I, 80 fig. 26.

[31] *Cf.* Megiddo type 11 C of Stages III–I (which, however, has loop-hanldes), and *Museum Journal*, 24, pl. 9:15 which first appears in level XIII (*cf.* p. 14). For the typical form of level XII, *cf.* p. 16. For other examples which seem more comparable, see n. 32.

[32] *G* I, 99. No examples are figured, but reference is made to the type in *Excavations in Palestine*, 7 (not " p. 3 " as Macalister's text has it). This form is Megiddo type 16 A which is rare in Stage II, but abundant enough in Stage I to make it a reliable datum for the period (*Notes*..., 44). Other similar forms are in the Ai sanctuary (*op. cit.*, pl. 56:26, 28) and Watzinger, *Jericho*, 100 Abb. 80 and Blatt 20: A, 2a. For the correlation of deposits, see *BASOR*, 63, 20.

form, giving both Macalister's and our own dating, the confusion between " Troglodyte " (" Pre-Semitic ") and " First Semitic " pottery will be clarified (see Fig. 1). These terms are thus quite meaningless, and must be disregarded entirely.[33] Caves 11 II, 15 I, and 30 II evidently were not disturbed by later burials during E.B., and their early pottery must have been left by their original inhabitants. The cave-dwellers of Gezer, then, lived on the mound during the first phase of E.B., in the centuries immediately preceding the First Dynasty in Egypt.[34] But during this very same period, several of these caves were used for interments (Caves 2 I, 3 III, 19 I, and 27 I), indicating that there had been a shift in habitation to the rock surface and that the caves could not have been used as dwellings for a very extended period. Caves 6 I and 16 I are the only examples of burial later in E.B., but only the pithoi have been published.

If the above conclusions are correct, we should not expect to find any of the forms characteristic of the second phase of E.B. among the published Cave groups. On the contrary they should appear in the stratum just above the rock, and this is exactly what we find.[35] The material which is published from this stratum, however, is very mixed and fragmentary. Certain forms such as *G* III, pl. 143 : 21 and pl. 147 : 7 indicate that the mound of Gezer was probably occupied throughout E.B., though the nature and intensity of this occupation cannot be gauged.[36]

Returning now to the skeletal remains found in Cave 2 I, we find the chronology of the two peoples still somewhat difficult. The upper series of inhumed burials, i.e., those of the large, broad-headed people, with which at least most of the pottery in the cave was obviously associated, belongs to the first phase of E.B. But what is the date of the cremated remains, i.e., those of the small, long-headed people ? The wares of this cave form an homogeneous group of pottery from one period ; and, if a portion of them was associated with the cremated skeletons, then both races belong to this same E.B. phase. Chronologically there is no difficulty, since one or two centuries would be amply sufficient time for both deposits. But the real difficulty is as follows : with such a clear-cut shift in race and burial customs one would normally expect an accompanying change in ceramic culture, a change more radical than can possibly have taken place in a period now so well known from the abundance of material at hand !

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[33] That this is now the case is no criticism of Macalister. The conclusion only comes from a mass of comparative material which has taken thirty years to discover.

[34] Further support of this is derived from the fact that, with the exception of the " Cream Ware " (see below), there is not a single published vase from Gezer which need antedate this period.

[35] *G* II, 139 and fig. 309. Note especially the second vase which is the same type as that found in the Royal Tombs of Abydos (*cf. BASOR*, 63, 17 : form B–IV d).

[36] The pottery which Rowe has published from his excavations at Gezer in 1934 is difficult to use, since the register was not published (*QS*, 1935, 19 ff., and pls. 3–4). Pl. 4 may be a homogeneous group of first phase pottery. The forms on pl. 3, however, are very mixed, dating from the first, second, and third phases.

It has already been pointed out that with one exception there is not a single published group of pottery from Gezer (including that from Rowe's excavations) which antedates E.B. : that exception is the " Cream Ware " (n.34). This distinctive ware was found, according to Macalister, only on the rock and there usually in groups. It was a light-coloured pottery whose finest pieces were covered with " a rich cream-slip," upon which geometric designs were painted.[37] In 1932 Albright identified this ware with the Ghassulian,[38] and detailed comparison of the forms with those from known Ghassulian sites shows conclusively that he was correct.[39]

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[37] *G* II, 137 and 150. The types of vessels found are shown in *G* III, 141:1–13, 143:1–2, and 23:18–21. The latter is the natural rock-shelter, Cave 30 II a, which is not " Troglodyte " as Macalister implies.

[38] *AASOR*, 12, §5.

[39] The most striking analogy is the horn-shaped vessel which is also found at Ghassūl and Umm Qaṭāfa (*cf. Teleilāt* Ghassūl, 104–5, type 27 and pl. 48 ; *Syria*, 12 (1931), 36 and fig. 5:1). The various forms of bowls also have parallels : *cf. G* III, pl. 141:1 and 6 with *Syria*, 12, 37 fig. 6–8 (identical). For an hemispherical bowl with a semi-disk-base, *cf. G* III, 141:4 with *loc. cit.*, 7 (identical). The straight-sided (V-shaped) basalt bowls (*G* II, 254, fig. 402 a) are also found at Umm Qaṭāfa (*Syria*, 12, pl. 18:2), while their pottery imitations appear in the Wādī Ghazzeh, Sites E and O (*Beth-pelet* II, pls. 38:12 and 39:15 ; *cf. G* III, 141:9, 12).

The various Ghassulian sites are probably not all coeval, and as yet we

Since the Ghassulian culture is now definitely confined to the fourth millennium or earlier (see above, p. 68), the "Cream Ware" must represent the earliest culture on the mound of Gezer.

It seems then that the small, long-headed people who cremated their dead in Cave 2 I must have been the makers of the "Cream Ware," i.e., Ghassulian people of the fourth millennium. If this thesis be accepted, the whole situation would be much clarified and the two races would not be crowded into a single E.B. period which otherwise seems to have an homogeneous ceramic culture. It must be remembered that, so far as we know, these small-boned, long-headed skeletons were found in no cave on the mound except the Crematorium, which might well have been the only cemetery of the time and thus the earliest cave on the tell. There is one additional piece of evidence that this was the case. Macalister states that the "Cream Ware" was never found in the caves,[40] but there is one bowl, found in the Crematorium, which is certainly Ghassulian. This bowl, evidently quite unlike the rest of the pottery from the cave, was not included with it, but published among assorted "First Semitic" wares.[41] In searching for comparative material Macalister admits that this type "is also found in Cream Ware"; and the painted band around the rim, the sharp edge, and the semi-disk-base now prove its identity.[42] The presence of a Ghassulian bowl in the

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cannot fix the exact chronological relation of the "Cream Ware," for example, with Ghassūl proper, though there is no doubt that both belong to the same cultural period. It cannot be too strongly stated that Frankfort's identification of the "Cream Ware" with the Syrian Ware of the Royal Tombs of Abydos (*Studies* I, 108 ff.) is entirely out of the question on typological as well as on chronological grounds. For recent restatements of the view, see his *Archæology and the Sumerian Problem*, 29, 33 n.1; and Hutchinson in *Iraq*, 2, 213 where he follows Frankfort, though mistakenly asserting that the "Cream Ware" came from Macalister's "Second Semitic."

[40] *G* II, 137.

[41] *G* III, pl. 145:13.

[42] *Cf. G* II, 141 type m. For similar bowls elsewhere, *cf. Syria*, 12, 37 fig. 6:7; and *Beth-pelet* II, pl. 40:37. Professor Albright informs the writer that a sharp edge and a decorated rim are also among the most distinctive elements of bowls from Ghassūl, reminding him of Mesopo-

Crematorium cannot be used as proof that this cave was used in that period, but it certainly is a strong indication.

Thus on the basis of our present evidence the most probable reconstruction of the earliest history of Gezer is as follows : The first occupants of the mound were the small, long-headed people who used Cave 2 I as a Crematorium for their dead well within the fourth millennium. Their habitations were probably natural rock-shelters such as Cave 30 II a (see n.37). The Troglodytes, i.e., the people who actually constructed most of the caves with their flint tools, inhabited them for a time during the first phase of E.B., during which they also gradually built dwellings on the surface of the rock and used the caves for the inhumation of their dead. They were a much larger, broad-headed people of whose origin we can, as yet, say little.

Unfortunately, material for comparative osteology in the fourth millennium is not extensive. These small, long-headed people remind us immediately of the Mesolithic Natufian skeletons, found by Miss Garrod near Athlit, but the latter are far earlier.[43] At the International Congress of Orientalists in Rome (September, 1935) Dunand described the results of his excavation of a Chalcolithic cemetery at Byblos, whose pottery, he stated, bore unmistakable points of similarity to the Ghassulian. A large number of skeletons were found, giving evidence of a small people with an average height of five feet two inches and with skulls prevailingly dolichocephalic,[44] characters which agree remarkably with the cremated remains of Gezer. But at present little more can be said. Macalister assumed that these earliest people of Gezer could not have been Semitic, but at present there is simply not enough evidence to ascertain their linguistic or racial group, except that they must have been members of the small Mediterranean race with the " river-bed " type of skull.[45]

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tamian techniques of the same period. This bowl-form must not be confused with a type that appears during the third phase of E.B. (*cf. BASOR*, 63, 18 : form G–II e).

[43] See *Journal of the Royal Anthropological Institute*, 62, 257 ff.

[44] See Albright's résumé in *BASOR*, 60, 3.

[45] Sir Arthur Keith, *The Antiquity of Man* (London, 1920), 15 ff. *Cf.* Karge, *Rephaim*, 686–7.

Vincent in *Canaan* argued that the substitution of inhumation for cremation at Gezer finds its best analogy in a similar transformation in the funerary rites of the " Chaldéo-babyloniens," where the innovation represents a Semitic invasion. Thus, he believed, inhumation is a characteristic of the Semites while cremation is a non-Semitic rite.[46] Unhappily, excavation since 1906 has not confirmed this hypothesis. The problem of the use of cremation in the fourth millennium still remains unsolved. Many skeletal deposits, originally thought to have been cremated, have since been considered as calcined by a natural process of oxidation. In the Greek world (the mainland, Crete, Rhodes, and the Aegean Islands) no clear cases of cremation are found before the Sub-Mycenæan period (circ. twelfth-eleventh centuries), and the practice does not become prevalent until the Geometric period (circ. tenth-eighth centuries), when it rivals inhumation in frequency of use.[47] In Europe cremation as an alternative for inhumation appears with the lake-dwelling occupation of the Alpine region. Myres argues that the custom spread from this region in late Mesolithic times into Britain, Italy, and Asia Minor.[48] In the Tripolje and Anau cultures it seems to have been used;[49] but little else can be said at present.

There may be a question as to whether the Gezer remains represent a true case of cremation. In the Early and Middle Helladic periods of Greece there were formerly thought to be many clear cases of cremation. It has since been shown that most of these can well be explained by some other means: e.g., in some cases a substance was burned in a burial cave to fumigate it before another interment was made.[50] Some such explanation might fit the Gezer situation, but, of course, could not be proved and hardly seems likely.

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[46] P. 267.

[47] Lorimer, *Journal of Hellenic Studies*, 53 (1933), 161 ff.

[48] *Cambridge Ancient History*, I, 110 f.

[49] *Ibid.*, 81.

[50] From unpublished material in a Master's thesis, written at the Johns Hopkins University in 1935 by A. H. G. Schulz.

REVIEWS AND NOTICES

Crusader Castles. Part II—The Letters. By T. E. LAWRENCE. Golden Cockerel Press, 1936. £2 2*s*.

WE are told that Lawrence had started rubbing brasses when he was only nine and a half. Even the letters in this collection begin when he was still a schoolboy and, between 1905–1909, he describes in them to members of his family his impressions of his visits in holidays and vacations to various English, Welsh, French, and Syrian Castles.

Both to the schoolboy and to the undergraduate each castle in turn appears more wonderful than the one he has just seen. In 1906 Tonquédec is " a wonderful fortress," and Fougères is " splendid " ; but la Hunaudaye leaves him in " doubt whether Tonquédec is eclipsed or not." In 1907 Fougères is thought to be " an exquisite sight, the castle is above and beyond words." In the next year Carcassone " is absolutely indescribable." In 1909 Krak des Chevaliers " is, I think, the finest castle in the world " ; but after seeing Sahyun only ten days later he considers the latter to be " perhaps the finest castle I have seen in Syria." Such rhapsodies would lead nowhere if they had not been combined, as they always are in these Letters, with vivid descriptions and thoughtful comments, sometimes even illuminated with an amusing story, such as the one he tells about the Great Tower of Coucy. During the Revolution an attempt was made to destroy the Tower, using half-a-ton of gunpowder. The massive walls not only held firm, but they acted like a gun-barrel, and through them all the insides of the tower were projected at the moon. Unfortunately, one and a quarter centuries later the whole Château was levelled, and H.E. effected only too well what gunpowder had failed to achieve. Despite Crown-Prince Rupprecht's strong protest, the Germans during their final retirement in 1918 slighted Enguerrand's fortress in a merciless way. A sketch, included in The Letters, gives a general view of the Château as it was ; but the only photograph of it, which is reproduced, merely illustrates the not particularly interesting or typical Porte de Laon.

The least attractive castle describes in these Letters is probably Pierrefonds. Possibly this is partly because of its late date, and partly, as Lawrence cynically remarks, because " Viollet le Duc left it as he thought Louis d'Orleans would have liked." There is a fine photograph of Pierrefonds ; but the photographs which we would specially commend are of Fougères, Carcassone, Aigues Mortes, and Kidwelly.

There are one or two misprints : Fougères appears as Fougéres on pages 17 and 18 and on the plates ; and Nargat on page 59 should be Margat. Also, through the letters, there are references to " keeps "—a term which in the Middle Ages did not have our modern significance. This point has already been discussed in the review of Part I. The student would have liked to find in Part II photographs of Tonquédec, the Donjon at Loches, and la Hunaudaye (Lawrence took four photos of the last-named in August, 1907). These pictures would have been more valuable than some of the drawings which are given ; for at least twelve of the drawings are to be found in Viollet le Duc's *Dictionnaire de l'Architecture* (1875). Pictures of Niort's interesting Donjon and Safita's great Tower are among the plates included in Part I ; in any case Niort should have been given in Part II.

On page 28 Lawrence mentioned that the figure over the King's Gate, Caernarvon Castle, is that of " Edward." The Edward in question is undoubtedly Edward II and the half-figure representing this king was put up about 1321. The building accounts show that the head was protected by twelve iron spikes—to prevent the birds sitting on it !

In fairness we must remember that these Letters were never intended for publication, nor did Lawrence have any hand in the selection of the drawings and photographs which are chosen to illustrate them. The Letters are merely wayside jottings ; and on his return home the fragmentary descriptions contained in them would be supplemented with more detailed comments on the special features of each castle.

The Letters, however, have a deeper significance than a mere archæological one, for they afford us an intimate impression of Lawrence in his early years, before he became a national hero. All through these Letters there are instances of Lawrence's boundless enthusiasm for a cause, and we recognize his frugality, his shrewd, inquisitive brain, his inexhaustible driving energy, and the supremacy of his mind over his tired body. Eventually these qualities gave us Lawrence of Arabia.

We are indeed glad to possess these delightful Letters; and students of human nature as well as students of medieval fortifications are alike indebted to the Lawrence family for their publication. The book and its illustrations are admirably presented by the Golden Cockerel Press.

B.

Marriage Customs in a Palestine Village II. By HILMA GRANQVIST, Ph.D. Helsingfors, 1935.

A REVIEW of Part I of this excellent and thorough research appeared in the QUARTERLY STATEMENT, July, 1932, and all the appreciations that were then written apply to this later and longer volume. This minute description of the marriage customs as follows in one village, *Arṭăs*, is made the more valuable and real because in the previous volume we were introduced to all the members of all the village inhabitants over a period of a century. Consequently the examples given to illustrate the various points are drawn from actual people of the village—given by name with their family relationships.

The volume is of interest and importance to the student of Folk lore, much is illuminating to the O.T., while for those who live, or have lived, in the Holy Land its value is great. In the towns of Palestine with their mixed population the clear-cut customs of the various villages become blurred, but many such customs which are obscure and have lost their meaning attain a new interest from such a work as this. In the first half we have descriptions of the Betrothal; the sadness of the bride—" tears drop down her fingers "—while the women around are joyfully dancing and singing; the arrival of the bride, if a virgin, at the bridegroom's house on camel back with ostrich feathers in her head and a drawn sword before her face; the rites of the " threshold " and the meaning of the " sour dough " and so on. All these and many other points are described in the fullest detail with references to literature in many languages.

The chapters headed "Married Life" are even more welcome as many questions here fully investigated have never been so fully described. Most important is the position of the wife in relation to her father and, very specially, her brother (" A man is even more responsible for his sister than for his wife and children, she can always take refuge with him even from her husband," page 254). This protection is specially the case in what the writer calls "The Ḥardāne problem" when the wife, considering herself unjustly punished, goes away. Then there are chapters on Polygamy and on Divorce, all fully illustrated by living examples, throwing much light upon the whole position of women. The whole work shows that a women's rights and her social position are far more assured than many popular writers have suggested.

It should be added that this volume is greatly enhanced by thirty illustrations from snap-shots of the actual doings of the villagers in relation to marriage. There is also a full list of references quoted and a most exhaustive index which includes a sub-index of Arabic words and another of Bible parallels.

Altogether this is a work of profound and patient research and no one wishing to understand the inwardness of Palestine life can afford to neglect it. At the same time it is primarily a book for the specialist and not a popular work. It seems to me that if Miss Granqvist would make a much shortened popular edition giving the main facts and conclusions but omitting references and certain details, such a book should have a wide circulation and be much appreciated by many who would never struggle through the original work (over 450 closely printed pages). For the student, the scientist and the administrator this exhaustive study with all its detail is not a page too long and is probably unique of its kind.

E. W. G. M.

Department of Lands and Surveys of Palestine. Annual Report of the Commissioner, Mr. F. J. Salmon, M.C., for 1935.

We have received a copy of the Annual Report of the work of the Department of Lands and Surveys and this report is of considerable interest to the Fund. It is stated that, "on 1st March, 1935, the Department of the Commissioner of Lands, which deals with Land Settlement and the general control of

Land Taxation, was combined with the Department of Surveys and the Department of Lands, which deals with Land Registration, expropriation and state domains. The unified Departments are now under the Commissioner for Lands and Surveys." It appears that since the value of land has increased there has also been an increase in the amount of litigation in connection with land settlement, and this has been a cause of considerable delay in the operations of the combined department. The system of rural taxation was changed, throughout the rural areas of Palestine, as from 1st April, 1935.

Some information is given as to the management of the Haifa Harbour reclaimed area estate. As to land registration, it is stated that the first half of 1935 was " characterized by unexampled speculation " in both urban and agricultural land. But this remark refers to a state of things now eighteen months old.

With regard to surveys, the strength of this branch was 89 in the office and 128 in the field. The major trigonometrical network was extended to about thirty kilometres south of Beersheba, and a certain amount of restoration of minor points was found necessary. Precise levelling is being undertaken ; the first circuit of 166 kilometres closed with an error of only 27.4 mm.—in British units, an error of about one inch in 103 miles. Fundamental bench-marks were fixed at Jerusalem, Jericho, Gaza, Beersheba, Beisan, and Jenin. The Jerusalem, Jaffa, and Haifa sheets of the map on the scale of 1 : 100,000 were published, and the Safad sheet was in course of printing. A map of Jaffa-Tel-Aviv was published on the 1 : 10,000 scale.

A record of excellent and systematic progress.

C. F. C.

Culture and Conscience : an archæological study of the new religious past in Palestine. By W. C. GRAHAM and H. G. MAY. University of Chicago Press and Cambridge University Press, 1936. 11*s*. 6*d*.

TO study the " New Past " which, in its failures and successes, has created the present, and to learn from those failures and successes a remedy for the tendency of religion in every age to become static and not dynamic—that is the object of the writers of this most interesting and stimulating book. They make the fullest use of anthropological and archæological discoveries in reconstructing the life and culture of Canaan, and in tracing the social development of man in Palestine, and its reaction on his religious ideas and worship throughout the ages : thus illustrating their thesis that " the dawn of culture is the dawn of conscience." They trace this development from " the anthropocentric period," during which some kind of cult of the dead seems to have been the only religion, from the age of Palæanthropus Palestinus, cave-dwelling, weaponless, non-social, through the period of the emergence of Homo Sapiens, through the Mesolithic Age (12000 B.C.), with the development of agriculture, the use of weapons, and the beginning of art, to the Copper–Stone Age (4000 B.C.), when the making of pottery, the domestication of animals, the grouping of dwellings into villages, marked a great advance. With village life and the emergence of social consciousness began the custom of the fellowship meal, at first perhaps only a communion with the dead, but later a means of communion with the deity. The second stage was reached when the consideration by man of his relationship to his environment led to the recognition of supernatural forces, and the consequent necessity for a cultus. This was the epoch of the monolith or bethel, and of offerings, and the building of the great sanctuaries, perhaps places of pilgrimage, which have been brought to light in recent years. The influence of the Hyksos and their superior civilization, with the consequent increase in man's needs, led to the development of a cultus which should keep the supernatural powers on man's side, and help him to prosperity. Thus the third stage was reached : that of the fertility cultus, with its symbols of the serpent, the fish, the dove, the mother-goddess—the dominant religion of Canaan from 1600–1200 B.C.

After the immigration of the Hebrews into Canaan, the successful issue of their struggle for freedom led to the establishment of the Monarchy, and to the recognition of Yahweh as a national, and not only a tribal, deity. During the period of the decline and fall of the Hebrew kingdoms, owing to the increasing pressure of imperialism from the East, a further stage was reached, with the teaching of the prophets, that attention to cultus was not enough, apart from a social ethic; so that " regenerative conscience " transformed the culture and the cultus of the Hebrews, and raised " mere love of life to love of the good life." This section of the subject is worked out in two most interesting chapters, in which, on the one hand, the affinities of Hebrew worship with that of surrounding countries are shown in detail, and, on the other hand, the continual movement onwards from henotheism to monotheism under the influence of the prophets is traced.

The last chapter, on " The Divine Plan in the Blurred Record," shows how criticism has disentangled the main sources of the Old Testament, and made it more possible to see the divine plan through a thorough investigation and rearrangement of the records of the past. The point is made that, whether or not archæological discoveries confirm a particular view of the origin of the Old Testament, the fullest use of such discovery must be made if we are to recover any picture of life, as it was lived, and of religion, as it was practised, in Palestine throughout the ages.

The archæological evidence as to cult objects and sanctuaries is given very fully, with numerous illustrations, and the recent discoveries at Ras Shamra are dealt with at some length, in connexion with the affinities of the myths with those of surrounding countries. References are given to much recent literature dealing with excavations and inscriptions, and with the ritual pattern of the Near East.

The authors necessarily have to deal with much controversial material: e.g., in regard to the patriarchs and their dates, the particular connexion with and influence of the Hyksos on the Hebrews and the date of the Exodus. They are not dogmatic on these points, but their own conclusions can be discerned. The authors are convinced that, in Palestine, fertility cults were later than the common meal sacrifice.

Among the many interesting discussions, perhaps that on the Ark is one of the most fascinating. It is thought that the form of the Ark was that of a portable model of a sanctuary, with cherubim in relief on the sides of the model. This idea has been followed up in an article by Dr. Graham May in *The American Journal of Semitic Lanugages* (July, 1936). It is suggested that there were local arks, as shrines, until as late as the Deuteronomic Reform. In connexion with the idea that the Ark was the abiding-place of Yahweh Himself, a further reference might have been given to Numbers x, 35, 36 (E) which show that this idea survived till the eighth century.

This bare outline may serve to give some idea of the contents of an extremely competent and important book, which should be read by every student of the Old Testament. The book is well printed and produced. The following are the only misprints which we have noticed: on page 83, note 28, " shake " for " snake " ; page 279, " Jonathon " for " Jonathan " ; page 286, note 86, " probably." And, in the footnote on page 214, " Principal Simpson " should be " Professor Simpson."

E. W. Hippisley.

The Committee have to acknowledge with thanks the following:

The Antiquaries Journal, October, 1936. Review of Sir Leonard Woolley: Abraham: Recent Discoveries and Hebrew Origins, by R. Campbell Thompson.

The Expository Times, October–December, 1936. Recent Biblical Archæology, by J. W. Jack (December).

Great Britain and the East, October–December, 1936. Political Parity in Palestine, by Norman Bentwich (Thursday, November 26th).

Iraq, Vol. III, Part II. An Archæological Tour in the Ancient Persis, by Sir Aurel Stein.

The New Judæa, October–December, 1936.

The News Review, Vol I, No. 22.

The Journal of Egyptian Archæology, Vol. XXII, Part I. Some Notes on the Story of Sinuhe and other Egyptian Texts, by A. M. Blackman.

Man, October, 1936. Discovery of Skulls with Surgical Holing at Tell Duweir, by J. L. Starkey. Three Skulls from Palestine showing two types of Primitive Surgical Holing, by T. Wilson Parry.

Religions, October, 1936.

The Scottish Geographical Magazine, 52, 5–6.

The American Journal of Philology, LVII, 4.

The American Journal of Semitic Languages and Literature, LIII, I. The Canaanite God Hauron (Horon), by W. F. Albright.

Bulletin of the American Schools of Oriental Research, October, 1936. The Early Evolution of the Hebrew Alphabet, by W. F. Albright. The Chronology of Palestine in the Early Bronze Age, by G. Ernest Wright. New Canaanite Historical and Mythological Data, by W. F. Albright.

Bulletin of the Metropolitan Museum of Art, New York, December–November, 1936.

Geographical Review, October, 1936.

The Jewish Quarterly Review, October, 1936. Two Books on Palestine, by A. M. Margalith.

Journal of the American Oriental Society, 56, 3.

Journal Asiatique, CCXXVIII, I.

Le Monde Oriental, XXIX, 1935.

Revue Biblique, October, 1936. Le Monastère de Beth-Shemesh, by F. M. Abel.

Nouvelle Revue Théologique, September–November, 1936.

Archiv für Orientforschung, XI, 3. Die Reliefs der assyrischen Könige, by G. Furlani and E. F. Weidner.

Orientalische Literaturzeitung, October–December, 1936. In der Werkstatt des Hephaistos von Ugarit, by K. Galling. Review of E. O. James : The Old Testament in the Light of Anthropology, by L. Kohler. J. A. Montgomery and Z. S. Harris : The Ras Shamra Mythological Texts, by O. Eissfeldt.

Zeitschrift für die alttestamentliche Wissenschaft, 13, 1–2. Some Principles of Hebrew Metrics, by T. H. Robinson.

Biblica, 17, 4. Review of Engberg and Shipton : Notes on the Chalcolithic and Early Bronze Age Pottery of Megiddo, by R. Köppel.

Archiv Orientalni, VIII, 2. Die nichtsemitischen Monatsnamen der Nuzi-Texte, by L. Oppenheim.

Al Mashriq, July–September, 1936.

Bible Lands, October, 1936.

Bulletin of the Jewish Palestine Exploration Society, IV, 1–2.

ΝΕΑ ΣΙΩΝ, June–September, 1936.

The Excavations at Tall Chagar Bazar and an Archæological Survey of the Habur Region, by M. E. L. Mallowan.
Supplement to the Geographical Journal, No. 53, July, 1936.
Catalogue of Exhibition of Recent Work of the Egypt Exploration Society, October, 1936.
Proceedings of the Royal Canadian Institute, 1936.
Transactions of the Royal Canadian Institute, October, 1936.
The Revival of Palestine, by Sir Flinders Petrie.
The Jews in the Palestine Campaign.
Comments on Dr. Canaan's Pamphlet " *The Palestine Arab Cause*," by a native of Palestine.
Die Palästina-Literatur, V, I, by P. Thomsen (three copies).
Les Tours Royales de Josèphe Flavius, by M. Solomiac.
Britain's Problem in Palestine, by Scrutator.
Coins of Palestine, I, by M. Narkiss.
Exegese, by J. de Groot.

THE
PALESTINE EXPLORATION FUND

NOTES AND NEWS

On behalf of the Committee, the Editor wishes to thank the many subscribers, at home and abroad, who have written appreciatively of the new form of the old Quarterly Statement. There seems to be a unanimous approval of the change. Possibly, one or two who expressed regret at the disappearance of the familiar Warren's shaft from the cover may have overlooked its presence on the first inside page, where it will remain as a witness that the Palestine Exploration Quarterly carries on the traditions of the Quarterly Statement. May we express the hope that those who have valued the Quarterly Statement in the past, and who approve of its new form, will endeavour to secure as many new subscribers for the journal as they can. The Editor will also welcome any suggestions for the improvement of the journal, and especially any notes on matters of interest to students of Palestinian affairs and of the Old Testament.

The Neilson Expedition of Liverpool University reports from Tarsus the discovery near the foothills of the Western Plain, not far from the sea, of a very old prehistoric culture, apparently local, underlying levels which correspond with the earliest cultures of El Obeid, near Ur, and of Arpachiyeh, near Nineveh. The stratum is about nine feet deep, and twenty-five feet below the obviously Hittite levels. It is distinguished by peculiar painted and plain pottery fragments and the use of obsidian and flint.

Under the auspices of the British Museum and the British School of Archæology in Iraq, Mr. Mallowan has been carrying on pioneer work in the Habur region, where he has begun the excavation of Chagar Bazar, a site lying a little to the S.E. of Nisibis. The city stood at the meeting-point of the Babylonian and the Hittite Empires, and lay open to Anatolian influences. Its excavation is important as illustrating the character of the Mitannite civilization. Cuneiform tablets were found which, when deciphered, may give information about the Habur region at a time when it was first coming into contact with the Assyrians and the Babylonians.

In November of last year Professor Herzfeld published the text of the new inscription of Xerxes which was discovered in Persepolis in the summer of 1935. It is a document of considerable historical importance, throwing fresh light upon the changed policy of Xerxes with regard to the religions of the constituent parts of his empire. Dr. Hans Hartmann comments on the text as follows : " We have here a document of extraordinary historical importance. The predecessors of Darius had hitherto received the kingship of Babylon from the hands of Marduk, an act which was symbolically expressed by the ceremony of taking the hand of the god. Under Xerxes all this was changed. The continual revolts in Babylon and Egypt had shown that the policy of religious toleration was ineffective, and that a lasting peace in the empire was not to be reached along these lines. Hence for the first time in 484 B.C. did the Great King abandon the performance of this ceremony. Instead of taking the hand of Marduk, he performed a religious ceremony in honour of his own god, the god of the Aryans, who had made him supreme over the world. Henceforth he disregarded the religious convictions of foreign peoples. In Egypt he confiscated temple property, a proceeding which would have been unthinkable for Darius, and so Aeschylus (*Persae*, 407ff.) could charge Xerxes with having deliberately destroyed the holy places of the Greeks, an action which would be the cause of his ruin."

Those who are interested in the progress of Palestinian archæology will be glad to know that the Institute of Archæology, under the direction of Dr. R. E. M. Wheeler, with Miss Kathleen Kenyon as secretary, is now settled in its new quarters in the Inner Circle, Regent's Park, and will hold its formal opening on 29th April of this year. The Flinders Petrie Palestinian Collection is now housed and arranged at the Institute, and is available for the use of students, although the process of cataloguing is not yet complete. Next year the Institute hopes to arrange Diploma and Degree courses in Palestinian Archæology for students of the University of London. In the highly important work of giving an adequate technical and scientific training to field-workers, and providing a body of young and keen volunteers for Palestinian excavation, the Institute should receive the practical support of all who are interested in the progress of research and excavation in the Holy Land.

The most striking feature of this season's work at Tell Duweir has been the discovery of a great shaft, the largest of the kind which has yet been found in the excavation of any Palestinian site. It is suggested that the shaft may lead to the underground water-supply of Lachish. A tomb has also been discovered which is dated to the period of the Judges, with a large number of incense-burners lying outside its entrance.

Major C. S. Jarvis, of Sinai fame, delivered a very interesting lecture to a large audience at the Rooms of the Fund, 2 Hinde Street, on 25th February. The report of the lecture, revised by the author, appears in this issue, and readers will be glad to hear that Major Jarvis will lecture in the early autumn, at the Rooms of the Fund, on the subject of the desert wanderings of the Israelites, a subject on which he has formed some very interesting theories.

Letters announcing the new Archæological Survey of Palestine of which our readers have already heard have been sent to several of the institutions at work in the country whose goodwill and assistance is essential to the success of the project. Most encouraging replies have been received from the Department of Antiquities in Jerusalem, from the Pontifical Institute and from the two schools which are so intimately connected with the British School, namely the Dominicans and the American School of Oriental Research. The Secretary of State for the Colonies also has given us renewed assurance of his benevolent interest in the undertaking.

The following letter, which appeared in *The Times* of 19th March of this year, will be of interest to readers of the Palestine Exploration Quarterly :

TO THE EDITOR OF *THE TIMES*

Sir,—The interesting article by Professor Bentwich on " Spoiling the Holy City " in *The Times* of 8th February is open to misinterpretation owing to insufficient distinction between the condition and needs of the Ancient City of Jerusalem and those of the adjacent Modern City. I crave space to examine these matters.

As author of Lord Allenby's town planning scheme for the protection of the city, and having kept in touch with development throughout the years, one is pleased to record that the general principles of that scheme have been followed. These principles are, briefly, that the medieval aspect of the Old City within the walls should be preserved ; that a belt of land surrounding the walls should be reserved, so far as possible, as an open space ; and that within a large outer belt any new buildings should be in harmony and in scale with the Old City. In this way the aspect of and prospect from the Old City was protected. Beyond this outer belt the Modern City was free to develop under the usual town planning control.

An inspection on the ground to-day shows that the objects of the scheme have, in general, been attained, and that the spoiling of the Old City by the erection of unsuitable buildings and the demolition of interesting old ones, which was in progress before the War, has been stopped by the measures adopted.

It is the recent unsatisfactory architecture in the Modern City, beyond the outer protective belt, which Professor Bentwich doubtless refers to in his article. It is difficult to provide a remedy by regulation, but improvement may often be made by persuasion and special arrangement.

The point to be noted is that since 1918 the measures adopted by the authorities have effectively protected the

Ancient City and its environs. There is fear, however, for the future of the protecting zones owing to the rapid expansion now taking place, and a trust with funds available, as Professor Bentwich suggests, would be a valuable aid in maintaining protection.

I am, &c.,
W. H. McLean.

American Colony Hostel, Jerusalem.

By the death of Genevieve Lady Watson, at the age of eighty-two, the Fund has lost one of its oldest and most loyal supporters. Since the death of her husband, Sir Charles Watson, in 1916, Lady Watson had lived in Jerusalem where she devoted herself to work for the Ophthalmic Hospital of the Order of St. John of Jerusalem, and had for twelve years been Hon. Secretary of the P.E.F. in Palestine, fulfilling that office with typical zeal and devotion.

Sir Charles Watson was chairman of the Fund from 1906 until his death. The most dramatic event in the life of Watson Pasha was his capture of the Citadel of Cairo, after the battle of Tel-el-Kebir. An excellent description of this feat is given in *Blackwood's Magazine* for March, 1911. Captain C. M. Watson, who was then serving in the Intelligence Department, and had a good knowledge of Arabic, pointed out to the higher authorities the necessity of seizing Cairo and the Citadel immediately in order to avoid the probability of riots and destruction in that capital. After the surrender of Abbasia, Colonel Stewart placed at Watson's disposal a little force of five officers and eighty-four N.C.O.s and men of the 4th Dragoon Guards. Then came the night ride across a few miles of desert and waste ground in the outskirts of Cairo, the passage through the Bab-el-Wezir; the arrival at the main gate of the Citadel; Watson's summons to the commandant, and his orders that the whole garrison must evacuate the Citadel and march to the Kasr-en-Nil barracks. This was agreed to; the keys "in a beautiful bag" were handed over, and 6,000 men gave up their arms and marched out This feat of Watson's was never adequately recognized by Sir Garnet Wolseley, whose treatment of Watson was not greatly to his credit.

THE BASILICA AT BETHLEHEM

Reproduced from the original negative taken by Lieut. H. H. Kitchener, and published in his *Photographs of Biblical Sites*, 1876, with the following description :

BETHLEHEM

" This view is of the interior of the magnificent Basilica built by St. Helena, the mother of Constantine, over the first scene of our Lord's life—the Grotto of the Nativity (St. Luke, ii, 7). As early as the second century this site was known and venerated. It is easy to believe that the stable of the inn was a cave, an occurrence by no means rare at the present day in Palestine.

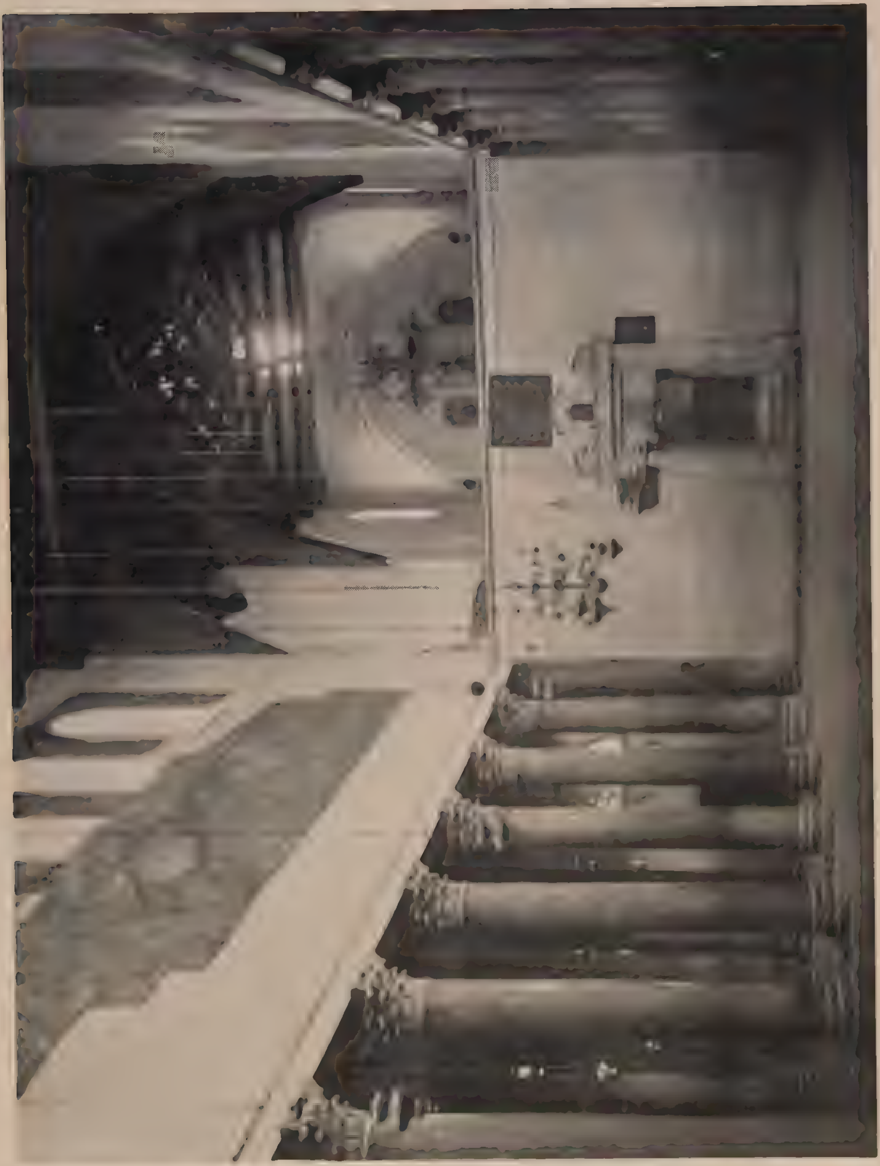
" The grotto is directly under the principal altar of the church, and in it a silver star let into a marble slab marks the place of the birth of our Lord, and bears the simple inscription ' Hic de Virgine Maria, Jesus Christus natus est.' In a grotto close by St. Jerome lived a great part of his life and produced many of his laborious works, which earned for him the title of ' Father of the Church.' Where he loved to live there he lies in peace.

" The altar of the Holy Innocents and the tombs of Santa Paula and Santa Eustachia are also shown close by.

" The church is believed to be the oldest existing Christian monument in the world. It was built in A.D. 327.

" Four rows of fine Corinthian columns of marble divide the church into a nave and four aisles. A wall built by the Greeks now cuts off the chancel and destroys the effect of this otherwise magnificent building.

The roof is made of English oak, sent over by King Edward IV. On many of the pillars there are crests of Crusaders painted. The mosaics were of the eleventh century, and are now almost defaced by time and bad treatment, but once must have been very fine."



THE BASILICA AT BETHLEHEM
(*for description see opposite page*)

NOTE.—An interesting article by Rev. P. N. Waggett, M.A., on the church at Bethlehem, which appeared in QUARTERLY STATEMENT, April, 1919, alludes to the removal of the wall above referred to, and is illustrated with comparative pictures.

Readers are referred also to Mr. William Harvey's recent work on the church, to his paper in QUARTERLY STATEMENT, January, 1936, and to his official Report *Structural Survey of the Church of the Nativity, Bethlehem*, 1935.

THE HITTITES IN PALESTINE, II

By E. O. Forrer

How long did these Hittites keep the tradition of their Hittite name?

From the fact that at the time of Saul, Ahimelech (1. Sam. 26 : 6), and at the time of David, Uriah (2. Sam. *11* : 3.6.17. 21.24. *12*:9.10. *23*:19.—1. Reg. *15*:5.—1. Chr. *11*:41), are called the "Hittite," and no others in later times, we may infer that they belonged to the Hittite population of Palestine. But it is not impossible that both were fugitives from the Hittites III of northern Syria; that Uriah was one of the servants of David would hardly be a serious objection against his being a foreigner. If we assume that the Hittite name of the population of the hill country of Judah disappeared among them after their conquest by the Israelites, then their name would have survived in the *Israelite* tradition only as the name of one of the seven aboriginal races, whereas it survived in the *Philistine* tradition until the Assyrian King Sargon. If we assume that Ahimelech and Uriah were Hittites from Palestine—and not from northern Syria—their Hittite designation would have disappeared among the Israelites in the time of David and Solomon, which is very likely. For this period of the presumptive domination of Israel over Syria means for the seven former populations and the Israelite newcomers their unification into a *nation* under the leadership of the latter. After this period the Canaanites, Hittites, Amorites, Perizzites, Hivites, Jebusites, Girgashites and even the incoming Israelites are no more than historical reminiscences. Therefore it is quite certain that the Hittite wives of Solomon were foreigners, as they are actually called, and not from Palestine. As far as Ahimelech and Uriah are concerned, I prefer to leave open the question whether they belong to the Hittites III (of Syria) or IV (of Palestine).

But as we have seen above (*Q.S.*, Oct., 1936, p. 201), the tradition of the Hittite name survived or was renewed in that part of the hill-country of Judah, which belonged to the Philistine kingdom of Ashdod as late as the year 711, in the time of the Assyrian King Sargon III, we may here assume a Philistine tradition.

Having shewn the existence of Palestinian Hittites at the time of the immigration of the Israelites and discussed the possibility of their latest existence as a nation in the reign of David, and of their survival, mentioned in 711 B.C. by the Assyrians, the question arises of their earlier history: and in the first place, whether there are traces of them in the Amarna-letters, which date from about 1385 to 1350 B.C.

To draw inferences as to Palestinian Hittites from Aryan or other non-Semitic proper names in the Amarna-letters is inadmissible so long as we do not know what was the nationality of these Hittites, Perizzites, Hivites and Girgashites. Hence arguments from proper names must be dealt with later.

Among the forty-four mentions of the Ḫatti in the Amarna-letters there is not one which could refer to anything but the Hittite II empire of Asia Minor. There is thus no mention of the Palestinian Hittites under the name Hittite.

It was supposed that the so-called second Arzawa-letter[1] in the Kanisian (i.e., Hittite II) language may have been written by a south-Palestinian Hittite IV because of his name Labbaja, whom we know to have been a petty ruler in southern Palestine.[2] But this name is always written *la-ab-a-ia* or *la-ba-a-ia*, never *lab-ba-ia* as in this second Arzawa-letter. Further there is no other passage in any *Kanisian* text where the sign KAL has the reading *lab*,[3] so that I prefer to read Kalbaia instead of Labbaja. In this case there is no connection with the south-Palestinian Labaia. Now if we read Kalbaia, a Bible student might connect this man with Caleb who settled among the Hittites of Hebron. But careful examination of the original of this tablet in the Berlin Museum, where its number is VAT. 342, showed me that Fr. Hrozny is right in explaining this tablet as one sent by the King Tarhundaradu of Arzawa to the Pharaoh.[1]

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[1] Transcribed by J. A. Knudtzon "*Die El-Amarna Tafeln*" Leipzig 1915. Nr. 32.—Republished by O. Schroeder in *Vorderasiatische Schriftdenkmäler des Berliner Museums* XII. Nr. 202.

[2] About Labaja see J. A. Knudtzon l.c.p.1312.

[3] Also for the Amarna-letters O. Schroeder in his comparative sign-list in VAS. XII Leipzig 1915.p.86 Nr. 127 gives no value *lab* for *KAL*.

There is thus neither any mention of nor any letter from south-Palestinian Hittites among the Amarna-letters. Hence this *testimonium ex silentio* concerning Hittites in southern Palestine makes it possible to assume that at the time of the Amarna-letters there were no Hittites in southern Palestine, i.e., up to the last years of Amenophis IV, who died in 1352 B.C. Thus the Hittites of Palestine cannot be an aboriginal population, but must be immigrants who came to Palestine after the Tell el-Amarna period.

It must be repeated that the frontier of the Hittite (II) empire stopped short at the northern end of the Lebanon and never came south of it. After the conquest of Syria by Soppilulioma when he raided Aba (Damascus), Hittite armies crossed this frontier on five subsequent occasions: in 1353 B.C. Soppilulioma sent an army for the first time to the Egyptian border-country, the land of Amka, i.e., the Biqʻa plain, and a second time in the next year, 1352 B.C., a third expedition to Amka took place under the guidance of the generals Lupakki and Tessobzalma. In the same year Amenophis IV died, and his widow Nefret-ete wished to marry a son of Soppilulioma. The son, who was sent by Soppilulioma, was murdered on the way. Thereupon in 1351 B.C. Soppilulioma declared war on Egypt, invaded Mizri, i.e., Egyptian territory in Syria, and carried away many prisoners, among whom a pestilence arose, which devastated the Hittite empire for at least the next twenty years.[2]

It is not said in the Boghazköi-Texts *what* Egyptian territory Soppilulioma invaded. He will have come farther than Amka, i.e., the Biqʻa plain, and probably ravaged the land of Aba, the biblical Hobah, in the environs of Damascus. That he reached northern Palestine is improbable ; it is difficult to believe that he could have reached the hill-country of Judah. And even if he reached it, there is no reason why he should have left there the Hittites of Palestine, since he did not keep in possession the occupied territory longer than for a raid. Yet his allies, the Habiri, conquered Palestine except the middle part and the coast.[1] But they are never called Hittites.

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[1] *Archiv Orientalny* III. 192. *Journal Asiatique* 218.1931. p. 307–20.

[2] All these events are dealt with in my "*Forschungen*" II.1 (1926) pp. 1–37 ; see especially p. 32.

The fourth crossing of the Lebanon-frontier by a Hittite army happened in the seventh year of Morsili (1338 B.C.), when he sent his general Gantuzzili across the frontier on an unimportant raid, which can hardly have reached Palestine.[2]

For the fifth time Egyptian territory was invaded by the Hittites after the Hittite king Movattalli had defeated Ramses II in the battle of Kadeš (=Kinza of the Boghazköi-Texts) in the year 1308 B.C. A text from Boghazköi reads: "When he had vanquished the king of Mizri and Ḥorri,[3] he went after [him] to the country of Aba. When my brother Movattalli had vanquished the country of Aba, [he we]nt [back] to the Hittite land, but he [left] myself (i.e., Hattusili III) in the midst of the country of Aba (i.e., Damascus)."[4]

This was the last Hittite invasion of Egyptian territory. Hattusili ended these wars by his "treaty of peace for ever" with Ramses II in 1292 B.C., which lasted until the great invasion of the Sea-people who destroyed the Hittite empire and shook the Egyptian domination in Syria and Palestine, which, however, lasted at least until the middle of the twelfth century B.C., as was known but recently by a statue of Ramses VI found at Megiddo.[5] Among those sea-peoples the Tabalians became the Hittites III.

Hence we see that there are no grounds for assuming Hittite (II) domination in Palestine, or "Hittite strongholds" in Palestine, as some scholars have done. On the other hand there is no doubt about the existence of Palestinian Hittites in the hill-country of Judah ; yet they cannot owe their existence to the political strength of the Hittite empire in Syria.

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[1] A discussion of the territorial changes of the Amarna-time cannot be given here, although only a collation of the Amarna-letters with the material from the Boghazköi-texts can give a right understanding of this fascinating period.

[2] See E. Forrer "*Die Boghazköi-Texte in Umschrift*" II, 2 (Leipzig, 1932), No. 54 §69.

[3] I take Horri to be a mistake of the scribe for Amurri.

[4] Bo.2518+2454+4060. I.17–21. The two first fragments only are published by A. Goetze in "*Keilschrift-Urkunden aus Boghazköi*" XXI. No. 17. Not yet transcribed or translated.

[5] R. M. Engberg in the *American Journal of Semitic Languages* 51, p. 261, according to P. Thomsen in the *Archiv für Orientforschung* XI, 1936, p. 94.

The solution of this riddle, already given by me in 1926,[1] is found in a prayer of Morsilis in the year 1331 B.C.,[2] after the Egyptian pestilence had afflicted the Hittite empire for twenty years.[3] The reason for this pestilence was held to be a sin of the Hittite king or state. Therefore he had looked over the archives of Boghazköi and had found on cuneiform tablets, among various sins, two, which might be the special reason for the pestilence. The first was the tablet of the incantation of the river Mala, which had not been celebrated since the time of Soppilulioma, the second "the tablet of the city Kurustamma." The sin which concerns our problem and the Hittites of Palestine is that which occurs in the tablet of Kurustamma.

Since it will be an advantage to have that part of Morsili's prayer before our eyes, I give § 4–8 of this text based on Bo. 2803 Obv. 13–38 (=KUB.XIV.8), completed by Bo.2067.II. 1–31. (=KUB.XIV.10) and Bo.2029+3713. II. 1–51 (=KUB XIV.11) :

§ 4. ša$^{?}$-n[u]-ú$^{?}$ dub$^{?}$-[b]u-ma[1] ša (Uru-)ku-ru-uš-ta-am-ma Lù (-Meš). (Uru-)ku-ru-uš-ta-am-ma ma-ah-ha-an (An-)U[2]. (Uru-)ha-ad-ti i-na Kur.(Uru-) mi-iz-ri bi-e-da-aš nu-uš-ma-aš (An-)Im[3].(Uru-)ha-ad-ti ma-ah-ha-an iš-hi-ú-ul a-na Lù (-Meš).(Uru-)ha-ad-ti me-na-ah-ha-an-da i-ia-ad nam-ma-ad iš-tu (An-)U.(Uru-)ha-ad-ti li-[in]-ga-nu-va-an-te-eš nu Lù (-Meš).(Uru-)ha-ad-ti ku-id Lù(-Meš).(Uru-)mi-iz-ri-ia iš-tu (An-)Im.(Uru-)ha-ad-ti li-in-ga-nu-va-an-te-eš e-še-ir nu ú-e-ir Lù(-Meš).(Uru-)ha-ad-ti bi-ra-an va-ah-nu-e-ir[4]	§ 4. The second tablet concerning (the city) Kurustamma (tells), how the Storm-God of Ḫatti the people of Kurustamma delivered into the land of Mizri. Then when the Storm-God of Ḫatti made a treaty between them and the people of Ḫatti, they moreover were sworn in by the Storm-God of Ḫatti, whereas the people of Ḫatti and the people of Mizri were sworn in by the Storm-God of Ḫatti, it came that the people of Ḫatti went astray.

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[1] In my "*Forschungen*" II, 1. p. 13, 21–2.

[2] l.c.p.19.

[3] The high historical importance of these prayers against the pestilence

§ 5. nu-gan ni-iš An-lim Lù(-Meš).(Uru-)ha-ad-ti hu-u-da-a-ag šar-ri-i-e-ir nu a-bu-ia Zab(-Meš). Anšu-Kur-Ra(-Meš) u-i-ia-ad nu Zag.Kur.(Uru[5]-)mi-iz-ri Kur.(Uru)a[6]-am-ga va-al-ah-hi-ir [7]nam-ma-ia u-i-ia-ad nu nam-ma va-al-ah-hi-ir[7] Lù(-Meš).(Uru-)mi-iz-ri-i[8]-ma ma-ah-ha-an na-ah-ša-ri-ia-an-ta-ad[9] na-ad ú-e-ir nu a-na a-bi-ia Tur-šu[10] [Lu-gal]-u-iz-na-an-ni an-ku ú-e-ki-ir nu-uš-ma-aš ma-ah-ha-an a-bu-ia a-bi-e-el Tur-šu bi-eš-ta na-an ma-ah-ha-an bi-e-hu-te-ir na-an-gan ku-e[11]-en-ni-ir a-bu-ia-ma , [12]kab-bi-la-az-za-ad-ta na-aši-na Kur.(Uru[13]-)mi-iz-ri pa-id nu Kur.(Uru-)mi-iz-ri va-al-ah-ta Zab(-Meš)-ia-gan Anšu-Kur-Ra(-Meš) ša Kur.(Uru[13]-)mi-iz-ri ku-en-ta

§ 5. Then the people of Ḫatti forthwith broke the oath. My father sent troops with horses. They destroyed the land of Amga, the border-country of the land of Mizri. And again he sent (troops). They destroyed again. But when the people of Mizri became afraid, they came, they asked repeatedly from my father a son of his for kingship. When my father gave them a son of his, when they led him away, they slew him then. But my father grew angry. He went into the land of Mizri, he destroyed the land of Mizri. Then he slew also the troops and horses of the land of Mizri.

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was recognized first in my compilation of them from ten fragments, with their text in transcription and translation in my "*Forschungen*" II, 1 (1926) p. 1–37. A second translation was made by A. Goetze, "*Die Pestgebete des Morsili*" in "*Kleinasiatische Forschungen*" I, 161–251.

[1] Bo.2803.Vs.13. Only the *two* last oblique wedges of *bu* are visible, not only one as given by Goetze. In Bo.2067.II.1 the first sign seems to be the lower half of *ša* being much more pressed together than Goetze gives it. The second sign begins with an oblique wedge missing in Goetze's edition. The third sign is the lower part of *ú* including the lower horizontal wedge, omitted by Goetze, whereas there is no oblique wedge suggesting *ri*, given by Goetze. Nevertheless the right reading *ša-nu-ú* is due to him (l.c.p.208). The fourth sign looks like the lower part of *la* or *ad*, but is to be read *dub*, as I have pointed out already *Forschungen* II, 1, p. 13.

[2] From Bo.2067.II.3.

[3] So Bo.2803.Vs.14.–Bo.2067.II.4:*U*.

[4] Only Bo.3713 begins here a new paragraph. Bo.2803 and Bo.2067 have no line of separation.

[5] Bo.2803.Obv.19 omits *Uru*.

[6] Bo.2803.Obv.19 omits *a*.

§ 6. nu a-bi-ia-ia (An-)Im.(Uru-)ha-ad-ti [14]be-lí-ia[14] [15]a-ba-ia[15] ha-an-[16] ne-eš[16]- ni-id šar-la-a-id nu-za Zab(-Meš) Anšu-Kur-Ra(-Meš) ša Kur.(Uru-)mi-iz-ri tar-ah-ta na-ad-gan ku-en-ta nu Lù(-Meš).ab-pa-a[n-za] ku-in e-ib-pir na-an ma-ah-ha-an i-na Kur-(Uru-)ha-ad-ti Egir-pa ú-va-te-e[17]-ir nu-gan i-na Šag-bi[18] Lù(-Meš) [19]Šu- Dib-Bi(-Hia)[19] hi-in-gan ki-ša-ad na-aš [20]ag-ki-iš-ki-u-an da-[a-iš][20]

§ 6. Also thereby justified my lord, the Storm-God of Ḫatti, my father by judgement: indeed he conquered the horse-troops of the land of Mizri and slew them. When they led back the prisoners, whom they caught, to the land of Ḫatti, then in the midst of the prisoners pestilence took place. They began to die more and more.

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§ 7. ma-ah-ha-an-ma Lù(-Meš). [21]Šu-Dib-Bi(-Hia)[21] i-na Šag-bi[22] Kur.(Uru-)[23]ha-ad[23]-ti ar-nu-e[24]-ir nu-gan hi-in-[25]ga-an[25] i-na [26]Šag-bi[26] Kur.(Uru-)ha-ad-ti Lù(-Meš). za-ab-tum-tum[27] [28]ú-te-e-ir[28] nu-gan i-na Šag.Kur[29].(Uru[30]-)ha-ad[31]-ti a-bi-e-iz-za Ud-Kam-az ag-ki-iš-ki-id-ta-ri nu-za ma-ah-ha-an e-ni Dub-pa ša Kur.(Uru-)mi-iz-ri bi-ra-an [32]ú-e-mi-ia-nu-un[32] na-ad iš-tu An-lim a-ri-ia-nu-un a-ši-va ku-iš me-mi-ia[33]-aš iš-tu (An-)Im[34].(Uru-)ha-ad-ti i-ia-an-za Lù(-Meš).(Uru-)mi-iz-ri ku-id Lù(-Meš).(Uru-)ha-ad-ti-ia[35] iš-tu (An-)Im[36].(Uru-)ha-ad-ti [37]li-in-ga-nu-an-te-eš[37]

§ 7. But when they transported the prisoners into the land of Ḫatti, then the prisoners brought (also) the pestilence into the land of Ḫatti. Then in the midst of the land of Ḫatti since that day they die more and more. Indeed when I lit upon that tablet concerning the land of Mizri, I inquired by lot from the deity (saying): "Concerning the former word, which is done by the Storm-God of Ḫatti, (and) the fact that the people of Mizri and the people of Ḫatti (were) sworn in by the Storm-God of Ḫatti,

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[7]–[7] These two phrases are omitted by Bo.2067, but preserved in both other texts.

[8] Bo.2067.II.15 and Bo.2029.II.9 omit *-i-*.

§ 8. (An-)dam-na-aš-ša-ru-uš-gan ku-id i-na Šag-bi bit.(An-) Im[38].(Uru-)ha-ad-ti be-lí-ia me-mi-ia-an-ma-gan Lù(-Meš). (Uru-)ha-ad-ti-bad[39] hu-u-da-a-ag šar-ri-i[40]-e-ir [41]nu-va-ra-aš[41] ma-a-an a-na (An-)Im[42]. (Uru-)ha-ad[43]-ti be-lí[44]-ia kar-tim-mi-ia-az[45] ki-ša-ad na-ad ha-an-da[46] a-id-ta-ad

§ 8. (and) the fact that then the Damnassara-Gods (were) in the midst of the house of my lord, the Storm-god of Ḫatti,—but even the people of Ḫatti broke the word forthwith—if upon my lord, the Storm-God of Ḫatti wrath has fallen," that was answered in the affirmative.

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[9] Bo.2029.II.11 inserted here a short phrase of 6 or 7 signs, beginning with *n[a* and ending with *-i]r*, which will have been a dittography of the following phrase.

[10] Bo.2029.II.14: *-šu.*–Bo.2803.Obv.21: *-šú.*

[11] So Bo.2803.Obv.23.–Bo.2029.II.16 and Bo.2067.II.19 omit *-e-*.

[12] So Bo.2803.Obv.23. In Bo.2067.II.20 this wedge determining words of foreign origin was added subsequently. In Bo.2029.II.17 it is omitted.

[13] Bo.2803.Obv.23 omits *Uru.*

[14–14] The whole word is omitted by Bo.2029.II.21.

[15–15] Bo.2029.II.22 has *ad-ta-aš-mi-in* instead of *a-ba-ia*; it should be *attanmin.*

[16–16] Bo.2029.II.22. has *-ni-iš-*.

[17] Bo.2067.II.28 omits *-e-*.

[18] Bo.2029.II.28 omits *-bi.*

[19–19] Thus Bo.2803.Obv.28.-Bo.2029.II.28: *za-ab-du-ti.*

[20–20] Thus Bo.2803.Obv.28.-Bo.2029.II.30: *ag-ki-iš-ki-id.*

[21–21] Thus Bo.2803.Obv.32.-Bo.2029.II.31: *za-ab-tum-ti.*

[22] Thus Bo.2803.Obv.29 and Bo.2067.II.31.-Bo.2029.II.32 omits *-bi.*

[23–23] Thus Bo.2803.Obv.30.–Bo.2029.II.32: *had-*.

[24] Thus Bo.2803.Obv.29.–Bo.2029.II.32 omits *-e-*.

[25–25] Thus Bo.2803.Obv.29.–Bo.2029.II.33: *-gan-n[a]*; but *-na* has been obliterated subsequently in part.

[26–26] Thus Bo.2803.Obv.30.-Bo.2029.II.33 omits *Šag-bi.*

[27] Bo.2029.II.34 omits one *-tum.*

[28–28] Bo.2029.II.34: *ú-e-te-ir*, certainly erroneous.

[29] Bo.2029.II.34 omits *Kur.*

[30] Bo.2083.Obv.30 omits *Uru.*

[31] Bo.2029.II.34 has *had-* instead of *ha-ad-*.

[32–32] Bo.2029.II.37: *ag-šu-ud.*

[33] Bo.2029.II.38 omits *-ia-*.

[34] Bo.2029.II.39: *U.*

[35] Bo.2029.II.40 omits *-ia.*

[36] Bo.2029.II.41: *U.*

[37–37] Bo.2029.II.41: *li-in-ga-nu-va-an.* Separation line only in Bo.2803.

[38] Bo.2029.II.42 has *An-lim* instead of *(An-)Im* and omits *(Uru-)ha-ad-ti be-lí-ia.*

§ 9. Zúr-ia ša (Í[d-)ma-]a-la hi-in-ga-ni še-e-ir[47] a-ri-ia-nu-un &c.	§ 9. Also concerning the ritual of the Māla-river I inquired by lot with regard to the pestilence &c.

The main fact, which we learn from this prayer, is that the people of Ḫatti had concluded a treaty with the people of Egypt about the people of (the city) Kurustamma, shortly before Soppilulioma had sent a son of his to Egypt, and, after the death of his son, had invaded Egyptian territory twice. The city of Kurustamma is well known from the Boghazköi-Texts as lying in the territory of the Gasga-people, i.e., in the western part of the Roman province of Pontus. Ḫattosili III in his great speech Bo.2026.II.8 (parallel Bo. 2032.II.2, not preserved in KBo.III.6.I.72)[1] tells us that the cities of Kurustamma and Gazziura became hostile, and attacked the Hittite (II) settlements. Gazziura is the Roman Gaziura, now Turkhal, hence well known, and Kurustamma can only have been some ten or twenty miles from Gaziura. Farther on (ibid.II.55) he tells us, that his brother Movattalli did not take the field against Durmitta and Kurustamma. Durmitta was another province and city of the Gasga-people.

Concerning the Damnassara-gods, "who are in the midst of the house of the Storm-god of Hatti," there are three possible reasons for their special connection with this tablet of Kurustamma. Either they were the main gods of the people of Kurustamma and hence mentioned in a prominent place of the treaty concerning them. Or they were by their special nature in some other way responsible in the case of these fugitives, the reason of whose flight we don't know. Or they were the representatives of the Egyptian part of the treaty concerning the Kurustamma-people.

[39] Bo.2029.II.43 omits *-bad*.

[40] Bo.2029.II.44 omits *-i-*.

[41–41] There is no room in Bo.2029.II.45 to restore this word.

[42] Bo.2029.II.45: *U*.

[43] Bo.2029.II.45: *had-* instead of *ha-ad-*.

[44] Bo.2029.II.45: *En-* instead of *be-lí-*.

[45] Bo.2029.II.45: *-za* instead of *-az*.

[46] Bo.2029.II.46. *-ta-* instead of *-da-a-*.

[47] Bo.2029.II.47 omits this word.

[1] A. Goetze, *Hattusilis*, p. 14–15. (MVAG. 1924.)

The termination *-sara* in the Kanisian (Hittite II) language being used to form females from male substantives of actors we shall expect the Damnassar-gods to be *goddesses*. Twice[1] they are mentioned in connection with the god Suvalijatta and the Horrian deities the bulls Sēri and Horri. Since also Suvalijatta is a fellow of the Horrian king of the gods, the Storm-god of the city Kummija,[2] and likely his marshal or messenger,[3] we must conclude, that the Damnassara-goddesses belonged to the pantheon of the Horrians in Upper Mesopotamia and North Syria; hence they were not the gods of the city Kurustamma.

In the legend of Kissi this hero dreams: he encounters a lion, he flees towards the courtyard, but in front of the yard he found the *ellija[nku]*[4] and the *damnassara* (Plur.).[5] Here the dream ends. It is clear that Kissi was so to say between Scylla and Charybdis, and that the *ellijanku* and the *damnassara's* were frightful beings. There is thus no doubt, that *ellijanku* is the well-known Illujanka-dragon, and that the Damnassara-goddesses are—at least originally—also some kind of frightful beast, possibly serpents. That explains why they are written *without* the determinative of gods twice.[6]

At a feast the Damnassara-goddesses are being turned about always so that their eyes may follow the king, wherever he goes.[7] Hence their look is of special importance, which again points to serpents. The Damnassara-goddesses are especially celebrated on a pilgrimage of the king in which he is visiting a line of important cities and temples of the inner Hatti-land; he reaches the capital Hattusa=Boghazköi at the ninth day and celebrates the Damnassara-goddesses at the twelfth day in the temple of the Storm-god.[8]

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[1] Bo. 30.I.1 (=KBo.II.30).—Bo. 5041.IV.10 (=KUB.X.11).

[2] See *E. Forrer, Eine Geschichte des Götterkönigtums aus dem Hatti-Reiche* in *Mélanges Fr. Cumont*, Brussels, 1937, p. 687–713 or "Göttergeschichte als Weltgeschichte im alten Orient" at the *Forschungen und Fortschritten*, 1st Nov., 1935, p. 398, and "Götterkönighümer als Vorgeschichtsperioden Babyloniens" in *Forschungen und Fortschritte*, 10th July, 1936, p. 255.

[3] Bo. 2800.I.24.26 (unpublished).

[4] *ellijankus* occurs also in the unpublished legend of Ishtar Bo. 2024.III. 65.

[5] Bo.5456.II.13 (=KUB.XVII.1.).

[6] Bo.5041.IV.10 (=KUB.X.11) and Bo.5456.II.13 (=KUB.XVII.1).

[7] Bo.115.III.25.31 (=KUB.II.3).

[8] Bo.3117.IV.13 (unpublished).

From all this it seems that the second alternative is true, i.e., that the Damnassara-goddesses are of a *special* nature, which suggests that it is unlikely that they were concerned with the flight of the Kurustamma-people, or with the treaty about them with Egypt, but that they were concerned with the violation of this treaty by the Hatti-people. Since the Kanisian formation by *-sara* of their name betrays a recent origin as a divine name, and since the usual determinative for goddesses in the Egyptian hieroglyphic writing is the snake (*iʿr-t*) 𓆗, which with the reading *wꜣḏj-t* means Buto, the Serpent-goddess of Lower Egypt, and since its dual *wꜣḏj-t* " the two Serpent-goddesses " means Buto and Nekhbet," the tutelary goddesses of Lower and Upper Egypt, it may be supposed, that the *damnassara*-serpents? were chosen to be the representatives of these Egyptian tutelary serpent-goddesses of Lower and Upper Egypt and were made deities, only when this first treaty of Hatti with Egypt concerning the Kurustamma-people was concluded.

This conjecture best explains all the features known about the Damnassara-beasts and -goddesses and the role, which they play in §8 of Morsili's prayer against the pestilence, as primarily concerned with the violation of the treaty with Egypt. The fact that they belong to the pantheon of the Horrians, i.e., of Mittanni in Upper-Mesopotamia and North Syria, shows that their personalities—not their names—were taken over from Mittanni, which was allied with Egypt during the century before Soppilulioma's war against Mittanni and Egypt.

There is only one occasion on which the Hittite people could have concluded a treaty with the people of Egypt about the people of the Hittite city of Kurustamma, namely when the latter had come into Egyptian territory as fugitives.

The chronological question thus raised may easily be answered by the following facts. The country of the Gasga-people, to which the city of Kurustamma belonged, was conquered by Soppilulioma in the year before his conquest of Gargamis and the death of the king of Egypt (Amenophis IV) (1352 B.C.), i.e., 1353 B.C., as we know from the annals of Soppilulioma,[1] and from his letter VAT. 7476 to the successor of the dead Egyptian king (Tut-ankh-Amon),[1] where he says (Obverse 7'): "The whole of Gasga I enslaved." Only from this year 1353 B.C. onwards did the city of Kurustamma belong to the Hittite empire; there was no reason why the inhabitants of Kurustamma should flee *before* this time. But when Soppilulioma subjugated the whole country of Gasga, many Gasgaeans may have tried to escape captivity by flight, and those of Kurustamma succeeded in reaching Egyptian territory.

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[1] E. Forrer, *Die Boghzaköi-Texte in Umschrift* II.1926.Nr.41 § 1–6.

In the next year, 1352 B.C., Soppilulioma began the siege of the city of Gargamis and sent his generals Lupakki and Tatta-zalma into the country of Amka (the Biq'a-plain); they devastated it and brought the spoil to Soppilulioma. Just at this time the Egyptian king Bibhururija (= Amenophis IV) died, and his widow Dahamun-eka—says the Hittite text—asked Soppilulioma by letter to send her one of his sons, that he might become king of Egypt. Soppilulioma sent his eunuch Ḫatti-zidi as ambassador to the queen of Egypt for verification of her letter and in the meantime conquered Gargamis. When Ḫatti-zidi was in Egypt, the queen of Egypt sent to Soppilulioma a second letter confirming the first one. Soppilulioma then sent one of his sons to Egypt.[2]

This Hittite embassy of Ḫatti-zidi to Egypt was the very opportunity to clear up the case of the fugitives from Kurustamma and to conclude a treaty about them with the Egyptians. It cannot have been at a later time, because the son of Soppilulioma, who was sent to Egypt, was murdered, and Soppilulioma declared war on the new Egyptian king, who can only have been Tut-ankh-Amon.

The conclusion of the treaty about Kurustamma may have taken place some months—but not more—earlier, if we take into account the words of Morsili's prayer given above, according to which the Hittites broke their oath when Soppilulioma *first* sent troops to Amga. If this is right, the tablet containing the treaty about Kurustamma had been brought to Egypt before the embassy of Ḫatti-zidi and before the raid of the generals

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[1] Discussed by E. Forrer in "*Forschungen*" II,1.1926 p. 28–30.

[2] Annals of Soppilulioma Bo.2003.III–IV.=KBo.V.6 (Hrozny)=E. Forrer, *Boghazköi-Texte in Umschrift* Nr.41. Vgl. Bo.2541+Bo.2685 in E. Forrer "*Forschungen*" II,1. 1926, p. 23.

Lupakki and Tatta-zalma on Amka, and shortly before or after the beginning of the siege of Gargamis, and reached Egypt in the last months of the life of Amenophis IV, whereas its confirmation by the Egyptians only arrived after his death. In any case the treaty must have been concluded in the year of the death of Amenophis IV, i.e., in 1352 B.C.

Hence it may be stated that in the year 1353 B.C. the people of the Gasgaean city of Kurustamma, presumptive subjects of the Hittite king Soppilulioma entered the Egyptian territory as fugitives. In the next year, 1352 B.C., viz., that of the death of Bibhururija (=Amenophis IV), a treaty concerning them was concluded between the Hittites and the Egyptians.

We may conclude that the Egyptian king allowed them to settle in a sparsely populated district, and that they founded several villages. In the prayer of Morsili we only hear about the people of (the city) Kurustamma and not about the country of Kurustamma. Hence we cannot assume that they numbered more than some hundred or at the most a few thousand people. We may compare the 7,000 fugitives who came into the country of Miellavanda (VAT. 6692.III.10),[1] the 4,000 who escaped into the country of the Seha-river, and were delivered by it to Morsili, the 1,000 whom Morsili recovered from the country of Azzi,[2] or the 3,000 people whom Morsili deported from the two cities Aribsa and Duggammana.[3]

They probably called themselves "people of Kurustamma" and "people of Gasga," but not "people of Ḫatti," Hittites, because they had only recently become Hittites. Hence they got their name Hittites (IV) from their neighbours, the Canaanites and Amorites, who called them Hittites, because they came from Hittite territory and because they were previously subjects of the Hittite king in an official sense.

When the Tsherkess and other Caucasian peoples came to Turkey as fugitives, they were at first concentrated near cities for half a year or so; then they were allowed to settle in unoccupied territory.[2] They build themselves houses in places where no village had ever stood before.—It will have been the same in ancient Palestine. The Kurustamma-people, or Hittites IV, will thus have been concentrated near the cities of the hill-country of Judah. Jerusalem already existed, because it is frequently mentioned in the Amarna-letters. But Hebron is not mentioned and hence may have been a foundation of the Hittites IV, the Kurustamma-people, in the year 1353 B.C. The same may be the case with the third Hittite city Beersheba. But archæological evidence may make it possible—I myself have not yet had the opportunity to see Jerusalem, Hebron or Beersheba—to decide at a glance from the form of the tell and from the surface potsherds whether Hebron or Beersheba is older than 1353 or not.

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[1] E. Forrer "*Forschungen*" I,2.1929 p. 112, 172, 173.

[2] A. D. Mordtmann "*Anatolien*" Hanover 1925 p. 361, 376.

[3] E. Forrer "*Boghazköi-Texte in Umschrift* II. Nr. 48 § 41. But that is only the share of the king; the share of the knights is not included in this number.

In any case, the fugitives would not have obtained existing inhabited cities as dwelling places, but only unoccupied territory. They would have preferred mounds of old ruined cities as building-places for their villages. But the Hittite occupation of ancient cities like Jerusalem can only have been a later development. They may have settled there as colonists in a time of peace ; or they may have taken advantage of the disturbances which followed the downfall of the Egyptian power, after the Philistines had come in, to attack cities of the Amorites or Canaanites. We know that the Tsherkess fugitives, even in the Turkey of the time of the Sultans, had bloody struggles for the pasture-ground with their new neighbours,[1] and the warlike people of Kurustamma probably behaved much in the same way. From these facts we should expect, for archæological research, that in genuine Hittite sites the Hittite layer will be the lowest, or in sites with earlier settlements, that there will be a chronological gap between these and the Hittite settlement.

Doubtless these Hittites from Kurustamma would continue to make their utensils, weapons and pottery just as before, that is in the Hittite manner. Their neighbours may have learnt from them, and as the result of such imitation a new mode may have arisen, which the archæologist can recognize by comparison with the utensils of the Anatolian Hittite civilization as of Hittite origin. But it is also possible that they quickly assimilated the Canaanite civilization. Here the archæologist must continue the work of the historian.

[1] E. Banse "*Die Türkei*" Braunschweig 1919 p. 60.

The influx of a few thousand newcomers from Kurustamma would not normally mean a change of any importance in the ethnical character of the population of Palestine. Anthropologically the Gasga-people of Kurustamma consisted of Armenoid Proto-Hattians plus Indogermanoid Luvians plus Indogermanoid Kanisians. But since the Luvians and Kanisians came into the Gasga-country only as conquerors, the stock of the Gasgaeans will have been Proto-Hattian anthropologically. And this means very likely no great difference from the aboriginal stock of Palestine.

There is also no reason to believe that these people of Kurustamma actually brought Indo-european, especially Indo-aryan, elements into Palestine. In so far as there are such elements in the proper names of the Amarna-letters, they must have come in at earlier times in connection with the invasion of the Ḥorrians from upper Mesopotamia.

Concerning the language of the Kurustamma-people it may well be that all the three languages, Proto-Hattian, Luvian and Kanisian, were known to them. But one would expect that their everyday language was Luvian. Some families of Kanisian origin may have preserved their language, but probably these did not emigrate but became true subjects of the Hittite king. Proto-Hattian finally survived perhaps only in some religious chants which were handed down by the priests and the old wives. Two hundred years later the Luvian language may in the Gasga-territory itself have been supplanted by the Kanisian language owing to the strong influence of Kanisian-Hittite domination and civilization. But the Kurustamma-Hittites of Palestine must have preserved the older form of speech. We do not know whether they retained their own language for only a few generations, or until the time of Solomon, or even up to the time of the Hatte of Ashdod, mentioned in 711 B.C.

It may be remembered that Solomon did not allow the Hittites and the other non-Israelite people of Judah (see above p. 203, Nr. 18, 1 Kings 9 : 20, parallel Nr. 21, 2 Chr. 8 : 7) to enter the army like the Israelites, but made them bondsmen of the king and do statute-labour "until this day," as the author of the books of the Kings says, i.e., about 560 B.C. By this depressing regulation Solomon isolated the national minorities from the Israelites and caused them to preserve their nationality after the fall of Judah into the Babylonian captivity.

From the above material we may draw the following conclusion : The name " Hittite " in Palestine has two separate origins. In the first place the people of Kurustamma, who came to Palestine as fugitives from the Gasga-territory in Asia Minor in 1353 B.C., were called Hittites after the empire of the Kanisian Hittites to which they escaped. From them come the Hittites of the hill-country of Judah and the cities of Beersheba, Hebron and Jerusalem. This origin may be preserved in the designation of Aḥi-melek and Uriah as Hittites. In the second place the use of the name Hittite for the Tabalians of northern Syria was taken over by the Israelites from the Aramaeans, who in their turn had taken over the name Hittite from the Assyrians in their use of it for the Tabalian successors of the Kanisian-Hittite empire in northern Syria.

THE DESERT YESTERDAY AND TO-DAY

By Major C. S. Jarvis
(*Late Governor of Sinai*)

(*Report of a Lecture delivered to the members of the Palestine Exploration Fund on Thursday, 25th February*, 1937.)

The Chairman (Colonel Sir Charles Close), in introducing the lecturer, said that Major Jarvis had spent thirteen years in Sinai, a country on which he had written two books.[1] Members of the Palestine Exploration Fund would be interested to know that Major Jarvis was a supporter of the interesting and probably correct theory that the exodus of the Israelites took place along the shores of the Mediterranean and that they had nothing to do with the southern point of the Sinai peninsula.

Major C. S. Jarvis then delivered his lecture as follows :

As I am speaking to a society learned in archæology, I approach the subject of " The Desert Yesterday and To-day " with some trepidation, for I am in no sense of the word an archæologist, nor am I an antiquarian. My trepidation is in no way diminished by the fact that Colonel Newcombe, who actually mapped a large part of the desert about which I am going to talk, is sitting in the audience.

What I have seen in Eastern Sinai, Southern Palestine and Trans-Jordan is not by any means a new discovery, for Sir Leonard Woolley and T. E. Lawrence explored the area in 1914. I think I am right in saying that they did not discover anything of very great antiquity there, though they did find that in the late Roman period there had been considerable prosperity in that part of the world and that there were several large deserted towns in that barren area. Their book, *The Wilderness of Zin*, recently republished by Cape, deals with the archæological aspect of the country.

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[1] *Yesterday and To-day in Sinai*, Blackwood ; *Three Deserts*, John Murray.

When I first went to Sinai in an administrative capacity in 1922—I do not count my war-time service in 1916–17—I toured the whole peninsula by camel, and the impression left on me then was that it was a semi-desert land with no past whatsoever except for the Monastery of St. Catherine in the south, the Temple of Serabit el Khadim at the turquoise mines, and what I call the " Oldest Road in the World," the track that runs from Kantara, along the coast, through Bardawil and El Arish to Gaza in Palestine, on which there is a chain of small wayside towns. With those exceptions, I came to the conclusion that the whole of the big central plateau, an area of clay and gravel with innumerable shallow wadis or torrent-beds and rough limestone mountains, had never had a past; that is to say, there had been nothing more than the ordinary Arab cultivation, which consists of scratching the soil for the sowing rain-crops of wheat and barley in obvious catchment areas.

Gradually, however, as my eye became trained to the harsh and barren scenery, I discovered that my first impression was entirely wrong, and that the ragged lines of rocks that occurred here and there, the piles of stones and heaps of chalk and limestone, were not natural features but the remains of a very extensive settlement of cultivators, who terraced hillsides, built stone huts and cattle kraals, fenced orchards, and carved cisterns out of solid rock. You may consider that I was extremely unobservant not to notice all this in the first place, but one must remember that the eye is an organ that requires training. It is extraordinary how little the eye sees of things that it is not trained to pick out, and the remains of cultivation to be seen in Sinai are not at all obvious to the eye.

Limestone mountains rise in all parts of the central plateau, and my contention is that the Israelites received the law somewhere in the Gebel Hellal, and in this connection it is interesting to note that Hellal is Arabic for " lawful," or to be more exact " that which is permitted." In the past the Gebel Hellal area was extensively cultivated, the greater portion of the rough hillsides having been terraced and nearly all the small wadis or gorges dammed. Now there is nothing whatever there.

From the highlands of Sinai a pass leads down to the head of the Gulf of Akaba, the road dropping 2,900 feet in about one and a half miles, some of the hairpin bends being 1 in 3. At the head of the Gulf lies the little town of Akaba, which might someday be of importance. If Palestine continues to be as prosperous as at present, Akaba might possibly be opened up as a southern port for Palestine. It has a deep-water harbour, and can be easily connected with the Hedjaz railway at Ma'an. A peculiarity of the Gulf in the neighbourhood of the town of Akaba is that at a distance of three feet from high-water mark it is possible to obtain fresh water simply by digging in the shingle. During the war a quay was built by the British Navy, and you will remember that Akaba was one of the places Lawrence took by direct assault during the Arab revolt.

The fort in Akaba itself is now used as a custom-house and police-station. It was built in the fifteenth century by Sultan Selim of Egypt, who erected a number of similar forts for the protection of pilgrims. There are a large number of these forts south of Ma'an along the Mecca-Medina road. The fort at Akaba was built for the protection of Egyptian pilgrims, and there is another precisely the same in the centre of Sinai, at Nekhl. In the days of Sultan Selim these forts were garrisoned by Moors ; as the object was the protection from the Arabs of pilgrims going to Mecca, it was thought the Moors would provide a good antidote ! Descendants of these Moors now living in Akaba and in Nekhl are known as Akabowi and Nekhlowi.

Off the Sinai coast, just below Taba, there is a small island called Faroan, commanding the southern route down the Sinai Peninsula. Reynaud de Châtillon built a castle on the island and the greater part of its walls are still intact. Why the Crusaders occupied Faroan, I do not know, but I do know that it was here that Reynaud de Châtillon fitted out a fleet. The ships were carried in sections from Jaffa by camel, put together on the island, from whence they sailed south and harried the Saracen shipping as far south as Jeddah.

Southern Sinai is a district of solid granite, with mountains rising some 7,000 or 8,000 feet. Up to the third century Gebel Serbal to the west of the southern part of the Sinai Peninsula was believed to be the Mountain of the Law. Later the site was shifted more to the east, to Gebel Musa, or the Mountain of Moses.

Just south of Suez, on the Sinai side, are the Ain Musa or Wells of Moses, of which there are seven, and the water, which is not particularly good, bubbles up out of the soil.

In Southern Sinai there is the monastery of St. Catherine, founded by Justinian, on the supposed site of the Giving of the Law. The church inside, which now, unfortunately, has a corrugated iron roof and a late Victorian belfry, was built in A.D. 342 by Queen Helena and the walls round the monastery were built by Justinian in A.D. 530, and the monastery is probably one of the oldest occupied buildings in the world. The area inside the walls is very circumscribed; nevertheless, there are in it a flour mill, olive presses, a large refectory, a big rest-house for visitors, the church, sixteen or seventeen small chapels dotted about here and there in the walls and, last but not least, a mosque, built in the tenth century, probably as a sop to the Saracens. This apparently has never been used.

Wadi Gedeirat, in Central Sinai, is the Kadesh Barnea of the Bible at which the Israelites made their headquarters. It lies comparatively near the Palestine border, and was one of the places occupied and exploited by the Romans. When I went there the Roman dam had been washed away, and the reservoir was full of silt. I repaired the dam, made a watercourse and got the Arabs to settle on the various patches of land. Down the Wadi Gedeirat there flows a stream about three feet wide and six inches deep, a stream which in England is only a nuisance, but which in the desert means life to the nomad and fairly extensive cultivation.

The inhabitants of Sinai are nomads, but they are just the same as the inhabitants of Southern Palestine and Southern Trans-Jordan. I always think of them indiscriminately as Arabs or Beduins, and when I use the word " Arab " I am not thinking of educated people who live in villages in Palestine and call themselves Arabs, but of the true nomad who treks with his family along the Oldest Road in the World and other tracks in Sinai, Palestine and Trans-Jordan, with all that, unfortunately, the average Arab possesses—a third-rate camel, with a young one coming on, and three goats. He is a very primitive man, leading a very primitive life; everything he possesses, except his rifle, dates back to the days of Abraham. He has no use for civilization in any form.

The Arab law is that of an eye for an eye, a life for a life. According to Arab law, the whole tribe is responsible for the misdeeds of an individual member of the tribe. If one man murders another from another tribe, the whole tribe is fined and forced to pay blood-money. Normally, blood-money for a dead man is forty camels, valued at about £10 each, making £400 for a dead man. As the price of camels has fallen, murder in Sinai is now a little cheaper. A camel is now worth about £7, so blood-money would only amount to about £280. Bishaa is a trial by ordeal, instituted to discover whether or not a man who pleads not guilty is really guilty. The suspected man is asked if he will accept the Bishaa, which consists of licking a red-hot ladle three times. The Sheikh of the Bishaa is an hereditary post. He heats up the ladle. The accused man is brought forward, given a glass of water with which to wash his mouth. Then he licks the ladle three times, following which his tongue is examined. If it is burnt he is found guilty ; if there are no signs of burning he is declared innocent. On the occasion on which I witnessed the ceremony the man's tongue did not show any sign of having been seared by heat. The belief is that if a man is guilty he will be frightened and his mouth and tongue will be dry ; therefore his tongue will be burnt. If he is not guilty he will not be frightened and there will be sufficient saliva in his mouth to protect his tongue. When I was in Sinai I would not permit them to hold their ceremony of the Bishaa, because it is altogether too primitive, but in my early days I did once witness it.

The Arab loves litigation and will spend much time over a lawsuit concerning land. Indeed, the question of land is a matter of honour with the Arabs ; they get wildly excited about it, whether the land is of value or not. Actually they do very little with it. They exist mainly by camel-breeding, but there is now little of that. An Arab does, however, produce one or two camels during the year, which he tries to sell. He also keeps a few goats for goat-milk and occasionally for making cheese. In winter he scratches a small area of the soil to grow patches of barley or wheat, and if hard up he will go harvesting for the settled inhabitants of El Arish, Gaza or Beersheba. He gets a quarter of the crop of the harvest, but he will only go harvesting if really destitute. He prefers to wander round in search of grazing, following an age-old custom. He may now have only an old she-goat but still he will trek 250 miles down to Trans-Jordan to graze that goat.

Each Arab tribe has a *darak*, or area, which belongs to the tribe, and in which no other tribe can wander without permission ; and each Arab owns a portion of land within that darak. It is his by inheritance. You may find one miserable, ineffectual old man owning hundreds of acres of good soil in a wonderful catchment area and doing nothing whatsoever with it, and in another place a family of strong virile young men who might possibly run an orchard, but possess only a stretch of hopeless desert on which nothing can be made to grow.

Every inch of desert is claimed by some Arab. Governments do not recognize this shadowy ownership where no signs of cultivation exist, but if one wanted to settle cultivators from one of the villages on an Arab area opened up by the Government, those people would be afraid to settle there, knowing full well that unless the Arab landlord had been bought out the area would be claimed by some Beduin as soon as the Government left or was unable to protect them. The Arabs have during the ages seen so many governments and civilizations fall that they have not much faith in their continued existence for any length of time.

I have a theory that it is possible to help the Arab, to a certain extent, by getting him partially settled on the land ; I do not mean making him give up his nomad life, but I think there is just sufficient energy in the Arab to get him to cultivate some small patch in a catchment area where he could have forty or fifty olive trees, which would bring in some money and some oil ; and instead of only winter barley he could grow maize or millet and the cheaper vegetables, such as onions and tomatoes, and thus generally better his lot. That is not an altogether hopeless idea, because the Arab himself always has some idea of cultivation. In some of the wadis you will find here and there a little Arab garden with some old Arab in charge of it. He has made a catchment area and channels to bring water down on to his land ; he has inefficiently fenced the area with war-time barbed wire, and thorns and has planted a certain number of trees—usually very poor quality pomegranates. I maintain that this initiative can be extended. Whenever I found a man with such a garden I always sent down a work party to make him an underground cistern, and fence the garden with barbed-wire, and then gave him 100 trees to start with. I did succeed in stabilizing one small tribe in the Wadi Gedeirat—an old Roman settlement—who have thriving gardens and are now living on the fat of the land—or what passes for the fat of the land in the Arab world.

There is, of course, a school of thought—what one might call a rather fantastic, sentimental and " sloppy " school of thought—which thinks the nomad Beduin such a marvellous romantic figure of a man that it would be sacrilege or something worse to turn him into a cultivator. I have never been able to see that point of view. Personally, I see nothing detrimental or unmanly in being a cultivator. I was brought up to believe that the cultivator, the farmer and stock-breeder, was the backbone of our nation, and if it is a question of a tight corner I would rather have a company of farmers and farmers' men with me than double the number of nomads ; and if it comes to the question of honour, integrity, and loyalty, I think I'd rather trust the word of the farmer than that of the nomad. It is the nomad who has prevented the cultivator spreading over the deserts of the East ; in fact, the nomad has for ages preyed, like a jackal, on the cultivator.

It is no exaggeration to say that the Beduin is in an almost permanent state of starvation. Some of the sheikhs and richer men are well enough fed, but the average tribesman is well under middle height and of poor physique ; as Palmer said over sixty years ago " they are poor roasted snipe of men." Few Beduin women have more than two children because they are seldom in a strong enough state to conceive. I maintain, therefore, that if one can better the lot of these people and provide them with a little more food it is one's duty to do so. And their lot could be improved, as the desert they occupy need not be so hopeless and barren as it is. They need not give up the nomad life entirely ; they can still wander about in their picturesque clothes for the benefit of scenario writers and lady novelists with an Oriental sex urge.

As Woolley and Lawrence pointed out in *The Wilderness of Zin*, the public security in Palestine and Syria under Roman rule from A.D. 300 onwards, after centuries of massacres and warfare, caused such an increase in the population of those countries that people were more or less forced out of the fertile lands to the north and, through land-hunger, compelled to eke out a living in the deserts of Eastern Sinai, Southern Palestine, and Western Trans-Jordan. Land-hunger was one reason ; the other was the sea trade-routes from farther East. Constant caravans carried merchandise from the ports of Akaba, Suez and Tor, and merchants required forage for animals and foodstuffs, so villages sprang up on the routes. Merchandise landed at Akaba went up the Wadi Ithm *via* Shobek, Kerak to Philadelphia (now Amman) and Jerash, or else *via* the Wadi Araba, Kurnub, Beersheba to Hebron, the mart of Palestine. Goods from Tor and Suez came *via* Darb el Shur across Sinai, this being the alternative route to the Oldest Road in the World. It is not exactly a modern by-pass because it was used by Abraham and Isaac.

All the towns that sprang up in this part of the desert—Esbeita, Abda, Auja, Kurnub, Gedeirat, Raheiba, &c.—existed in places where to-day one family of Beduin can barely eke out existence. They were not big towns, but they were stone-built, and had, presumably, populations of from 5,000 to 8,000. Esbeita, for instance, had several churches and a monastery. In most cases there was no natural water supply, but the people selected good catchment areas and carved underground cisterns out of the solid rock. There are hundreds of these cisterns, or *harabas* as the Arabs call them. Another system of water-supply was the construction of reservoirs of cement, a channel being cut to lead the water for a mile or more into those reservoirs. Thus in a waterless desert sufficient water was conserved from the rainfall to supply the needs of the town. Cultivation was not confined to the vicinity of the towns. Along the Darb el Shur route, for miles on either side, in Sinai and all round that strip of Palestine territory on the Sinai frontier the hillsides have been terraced for orchards and there are many *harabas* containing enough water for several hundreds of people. Walls have been built across every wadi. In flood time the silt was conserved and the water had a chance to spread out and soak in. The late Romans probably knew the secret of dry cultivation, i.e., working up of fine tilth to conserve moisture. It is extraordinary what wonderful results can be obtained by that means and how little rain is required.

According to Woolley and Lawrence, and according to most surveyors who have been in Sinai, there is no reason to think that the rainfall to-day is any less than it was 2,000 years ago. I imagine that the fruits those early cultivators grew were olives, vines, pomegranates, almonds, apricots, carob, the carob bean being quite a useful food for a primitive man, like the Arab, and excellent fodder for animals. All these trees require a minimum of eight inches of rain a year. In the worst years in Sinai and Southern Palestine there will be four inches of rain, but if a garden is made in a catchment area and trenches are run out on either side to bring in the surface water from the hillside, it is easy to give a garden like that not four inches but twenty-four inches even in the driest year.

This is not mere supposition on my part, as I have proved it. I have reconstructed some of these old Roman gardens with their natural irrigation systems, and I have made new ones. Trees of the varieties I have mentioned have been planted and are growing extremely well and bearing fruit.

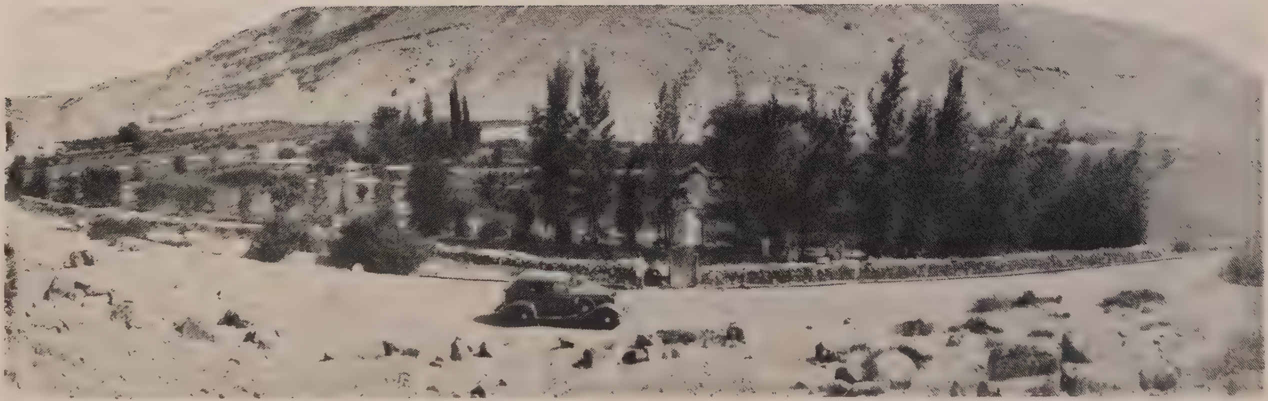
Some years ago I went into Petra by the western road from the Wadi Araba, and there was not a sign of life. Judging by the blockhouses all the way up and the miles and miles of terracing reaching to the top of the hills, it must in the past have been like Southern Italy with vine and olive gardens and small patches of corn. To-day this area produces nothing, definitely nothing.

My contention is that something could be made of this area of Eastern Sinai, Southern Palestine and Western Trans-Jordan that has been allowed to go to waste. Mind, I am not suggesting that it can be made into a land flowing with milk and honey, or that it will provide a solution to the Jew-Arab question of Palestine. It is not a country to which the man with an agricultural certificate should go expecting to earn good dividends, but it is a country that will support primitive man, provided he does not mind hard work and a bare existence. It is very suited to the hardy village folk one sees in Southern Palestine, Trans-Jordan, and Sinai. They would certainly make something out of it, but as I have already said they feel there must be some guarantee of protection from the

INDIAN CORN IRRIGATION IN ARAB GARDEN
(*see p.* 121)

UNDERGROUND CISTERN CARVED FROM NATURAL ROCK, CAPABLE OF HOLDING HALF A MILLION GALLONS OF WATER. HUNDREDS OF THESE CISTERNS EXIST IN THIS DESERTED AREA
(*see p.* 123)

PLATE III



ARAB GARDEN IN THE WADY GEDEIRAH. RECONSTRUCTED FROM THE OLD ROMAN IRRIGATION AND NOW YIELDING FRUIT VALUE ABOUT £70 ANNUALLY

Arabs if they settle there. It is going to be very uphill work settling the Beduin, but this should be attempted also. It is a harsh land with water shortage, sandstorms and every form of set-back ; but it is an area that in the past undoubtedly supported at least 100,000 people, but to-day I doubt whether there are 2,000 people living there.

I served for eighteen years in the desert ; I do not want to draw on your sympathy and make you think I spent a miserable time there, so I will conclude by showing you my garden at El Arish, a garden made out of the desert sand. I think you will agree that it contains plenty of bloom and well-grown trees, and that the desert has some possibilities. (Applause.)

Colonel Newcombe expressed the hope that on some future occasion Major Jarvis would spend time on further elaboration of his theory as to the Wanderings of the Israelites, and the Chairman, in proposing a hearty vote of thanks to Major Jarvis, endorsed this hope, because there were many who disagreed with the theory. It certainly ought to be more fully thrashed out.

A JEWISH TOMB IN THE KEDRON VALLEY

By E. L. Sukenik
(*Hebrew University, Jerusalem*)

In recent years, the Archæological Department of the Hebrew University started a systematic search—as far as was possible with the means at our disposal—for the Jewish tombs in the Kedron Valley, and in the vicinity of the village of Silwân.

Our search revealed that a great number of these tombs were already emptied of their contents, but from time to time an unopened tomb came to light, which contained ossuaries, some pottery deposits with them, &c. The most welcome things in these finds—since the practice of burial in ossuaries and their approximate date are already known—are the inscriptions, or rather graffiti, found written or scratched on the ossuaries.

Several of these unopened tombs had, besides plain ossuaries, also decorated or inscribed ossuaries. In one of them, we even found a painted four-line inscription on a wall, which I published elsewhere.[1]

In this article, I shall describe one of these tombs with inscribed ossuaries, which are somewhat out of the ordinary (Plate IV).

This tomb was found by us at the end of 1934, near the Bedawi cemetery of the Beni-Sawâḥir, close to Beit-Saḥûr el-'Atîqa. It was a very simple tomb consisting of only one chamber, 2.20 m. long and 2 m. wide, partly cut out of the rock and partly built in regular layers. The height could not be ascertained because the roof was found collapsed, but it seems to have been about 1.30 m. high. Traces of an entrance were found at the north-western end, but as the north wall—which was built on the slope of the hill—had been destroyed, nothing more can be said about it.

Five ossuaries, most of which had been broken by the collapsed roof, were found in this chamber. They were of the usual type, some of them being plain and some decorated with rosettes made with a compass, or with other geometric patterns. Of these five ossuaries, three were inscribed.

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[1] *Tarbiz*, Vol. VI, pp. 190 ff.

1. An ossuary with a flat lid, 67 cms. long, 30 cms. wide, and 39 cms. high, and standing on four small feet. The front is decorated with a narrow band of incised fluting, bordered with zig-zag lines, surmounting two rectangles cut by diagonals. On the back there is scratched a one-line Aramaic inscription (Pl. V, 1 ; Pl. VI, 1) :

חניה א בר אלכשה
Onias, son of Alexa

The writing was apparently done with some sharp tool on the soft stone of the ossuary, by a person who was evidently not very familiar with that "trade," although we must, however, admit that the writing is correct.

There is a difference between the ה and the ח. In the former, both vertical lines project above the horizontal bar, whereas in the latter either they do not project, or only the right vertical line projects. The left vertical line in the ה was apparently not intended to meet the horizontal bar. What is somewhat unusual is the א, in which the final vertical line is lacking, a peculiarity which is sometimes met with in ossuary inscriptions.

The name חניה, Onias (’Ονίας), figures prominently in the Jewish onomastikon of the period of the Second Temple, but appears here for the first time on an ossuary inscription, although cognate forms such as חנניה, Ananias (’Ανανίας), חנן Ananos (’Ανανος), חנין Aninas (’Ανίνας), were met with quite frequently.

The engraver apparently started to write, after the first name, the name of the father—of which he had already written the initial letter, the א—when he remembered that it was necessary to insert, between the two names, the word בר, " son."

Alexa could either be the hypokoristykon of Alexandros or the name Alexas. In the Hellenistic period the name Alexander was in vogue, as known, also among the Jews. The name Alexas is frequently met with in the Herodian period, being the name of a few of the members of the family of Herod the Great,[1] and also later.[2] As a proper name it appears for the first time in ossuary inscriptions. It is worth noting the transcription of the Greek ξ by כשׁ, in contrast to the Nicanor inscription[3] where the ξ is transcribed by כס.

2. An undecorated ossuary with a rounded lid, 26 cms. wide, 29 cms. high. The length was unascertainable, since the ossuary was found broken. On one of the short sides there is a one-line Hebrew graffito (Pl. V, 2; Pl. VI, 2):

אפיחׄסׄ בת אתנגרש

At first, it was difficult to decipher the names which were scratched here, but the problem was soon solved when, among the fragments of the long side of this ossuary, the Greek names, of which the Hebrew appeared to be a transcription, came to light (Pl. V, 3; Pl. VI, 3):[4]

ΑΠΦΙΑϹ ΑΘΗΝΑ (ΓΟΡΟΥ)

(*Of*) *Apphia, daughter of Athena*(*goras*)

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[1] *Josephus :* Bellum I, 21, 1 ; 33, 6 ;
Antiquitatum XVII, I, 1 ; XVIII, 5, 4.
The last reference is to Alexas Helkias, son of Alexas—the second name, Helkias, being his Hebrew name חלקיהו— who married Kypros, grand-daughter of Mariamne the Hasmonean, who bore him a daughter also called Kypros. Elsewhere, I drew attention to the fact that the naming of children after their parents was a common practice among the Jewish aristocracy at least at that time.

[2] *Idem :* Bellum VI, 1, 8 ; 2, 6.

[3] PEF Quarterly Statement, 1903, pp. 125 ff.
I did not happen to have seen Dr. Belleli's article in the *Corriero Israelitico*, mentioned by Macallister in the PEF Quarterly Statement, 1905, pp. 253 ff., in which he attacks the word אלכסא, found on the Nicanor ossuary, as impossible. Here again this name appears. In the light of this inscription, it seems now to me that the two words in Hebrew, נקנר אלכסא appearing under the Greek inscription of the Nicanor ossuary were meant to be the proper names "Nicanor" and "Alexas," the word אלכסא being not a shortened form of the ethnic אלכסנדרר, but a proper name. We have to admit that this famous ossuary contained the bones of two members of the family of Nicanor the Alexandrinian, the names of whom were Nicanor and Alexas. As we have seen in a previous note, there was then a custom among the Jews of having certain names repeated in the same family, even for father and son, and there would be no objection to admitting that even the sons of Nicanor the Alexandrinian were interred in this ossuary.

[4] In the accompanying photograph of this inscription there are fewer letters than in the given drawing, because the third fragment was identified only after the photograph had been taken. The same happened in the case of inscription No. 4 (Pl. V, 4; Pl. VI, 4).

Both names are met with for the first time on ossuary inscriptions. The first name occurs in the Epistle of Paul to Philemon, verse 2, Ἀπφία.[1]

The name of the father, which occurs in ancient sources as Ἀθηναγόρας or Ἀθεναγόρας is a name which frequently occurs from Greek times down to the first centuries of the Christian Era.[2]

These graffiti (both the Hebrew and the Greek) were evidently written by a more skilled writer, if we are correct in assuming that both were written by the same person. It appears that the Greek was written first, with more leisure, and the Hebrew transcription was started hurriedly—as the cramped and almost careless lettering in the first part of the inscription seems to suggest—but was finished with more care and better spacing of the letters. In contrast to the previous inscription, there are flourishes at the top of some of the letters—a feature which often appears in these inscriptions.

The most interesting detail in the transcription of the first name is in the last two letters, the reading of which is not quite certain. The first letter could be either a ה or a ת. The second letter, at a glance, looks like a ט, but there is no doubt that we must take it for a ס. We have here either a group of letters הס or תס. This would be the transliteration not only of the name itself, but also of its genitive form as in Greek, which is not required in the Hebrew. Since this name was apparently written in haste, as mentioned above, the genitive form was probably inserted unconsciously. The transliteration of this name is interesting also for the Greek pronunciation of the letters.

The Hebrew transcription of the second name is entirely devoid of vowels, and it would be very difficult to know, had we not the Greek version, what name it represents. The ς at the end of the word is here also transliterated by a ש.

3. The most peculiar graffito met with among the ossuaries of this tomb, was that found on the third ossuary, which was

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[1] In order to avoid any misunderstanding, the writer—mindful of a previous unpleasant experience—wishes to emphasize that there is here no suggestion of identification.

[2] *Pape-Benseler :* Wörterbuch der Griechischen Eigennamen. *s.v.*

plain and had scratched on its rear side, twice repeated, the word :

ΟCΤΟΦΑΓΟC

(Pl. V, 4 ; Pl. VI, 4).

Whereas usually—and also in the two ossuaries we have just dealt with—the graffiti are confined to the names of the persons buried in the ossuaries, in this instance the graffito refers not to the contents of the ossuary, but to the actual ossuary itself. The word ’οστοφάγος was evidently the designation for ossuaries at this period. The term " ostophagos "—bone-eater—was coined by parallel with " sarcophagos," meaning flesh-eater.

In old Greek literature, there are two names for ossuaries ; namely, ὀστοδοχεῖον (?), ὀστοθήκη. The name " ostophagos," for ossuary, does not occur, as far as I could ascertain. In Strabo[1] the root ὀστοφαγέω —to eat bones—occurs. In Talmudic literature the name for these ossuaries is גלוסקמא which is the Greek word γλωσσόκομον, meaning case or casket, and sometimes also coffin. The term γλωσσόκομον was found recently in the Jewish cemetery in Sheikh Abrek, but *our* ossuary inscription shows us the older term, and in dealing with these antiquities we could really use the term " ostophagoi " instead of " ossuaries."

It is interesting to mention that I found in one of the earliest articles in English, published on the ossuaries by a member of the first Survey party, that he calls them " ostophagi."

This otherwise insignificant tomb, therefore, provides us with some very interesting data, from many aspects.

There were very few pottery fragments, but my impression from these fragments was that this tomb could be ascribed roughly to the Herodian period.

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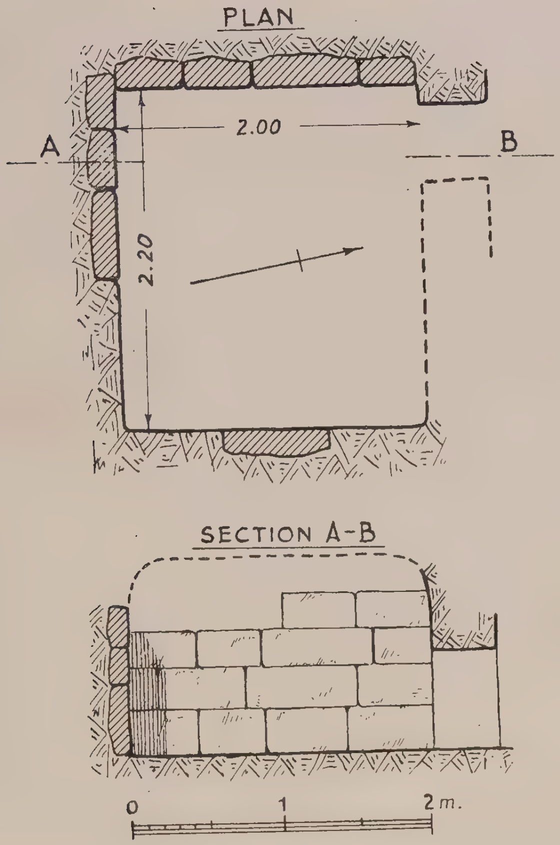
[1] *Strabo,* XVI, 4, 17.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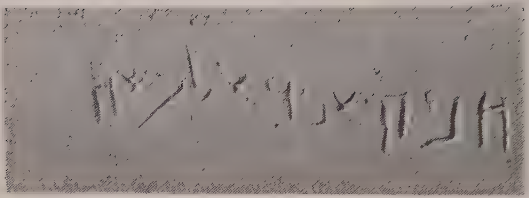

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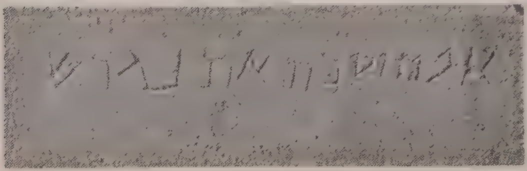

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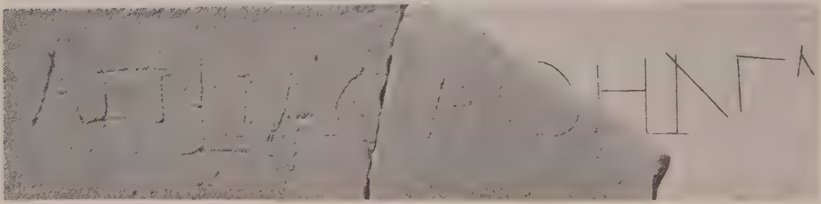

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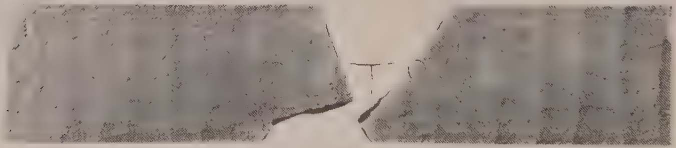

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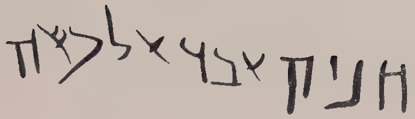

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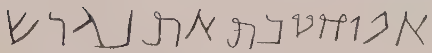

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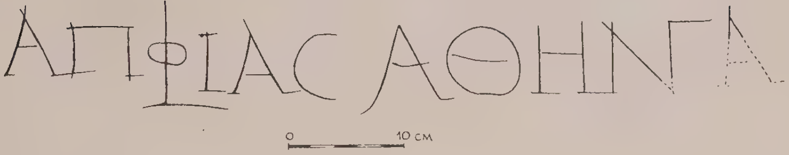

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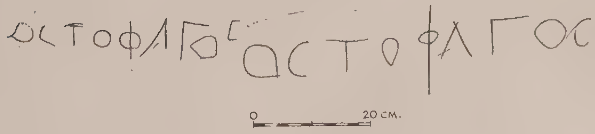

PALESTINE STATISTICS

By Albert M. Hyamson

Among the many advantages conferred on Palestine by its Mandatory Government has been the institution, unfortunately somewhat belated, of an Office of Statistics. To say that reliable statistics is the raw material on which a government has to work is a truism. And what is a necessity to other governments is doubly a necessity to that of Palestine, with its questions of immigration, of government employment, of government grants and a host of others, all dependent on reliable statistics. Of course the Government was not entirely devoid of such raw material before the Office of Statistics was established and its very able head, Mr. S. A. Cudmore, began to issue his bulletins a year ago. But only a part of the very wide field was scientifically covered and the remainder, of far greater extent, left open for the hazard of the guess and, still worse, for the propagandist. Mr. Cudmore has, of course, not entirely ousted these pests, but he has, already after only a few months, severely restricted their field, and perhaps when he has completed his programme, say a year hence, the opportunity of the propagandist so far as figures are concerned will have entirely passed.

Of all the figures supplied by Mr. Cudmore those of the widest interest are probably the population ones. The conclusion at which he arrives is that the total population of Palestine on 31st December last was 1,300,151, exclusive of the nomad population (estimated at 66,553 in November, 1931) and of the members of His Majesty's Forces. This total includes 384,055 Jews, 796,175 Moslems ,and 108,513 Christians. The Moslems are with few exceptions all Arabs, and of the Christians the great majority, if not Arabs, belong to the Arab cultural sphere. The nomads are also all Arabs. (The term Arab is taken in the widest sense to denote Arab-speaking.) Thus there were about 970,000 Arabs and 385,000 Jews in Palestine at the end of 1936. These figures are based on the census figures of 1931 with the addition of the natural increase and the balance of immigration since that date. The excess of " visitors " entering over those leaving is taken into account, but no figure is given of those persons in the country who entered by evading the frontier controls or from Transjordan on whose Palestine frontier there is no control. An addition to both the Arab and Jewish figures should be made on this account. The Government Statistician is unable to estimate these additions, but the Jewish Agency, giving elsewhere the figure of 410,000 as the Jewish population at the end of 1936, apparently estimates the number of unrecorded Jewish entrants, since the end of 1931, at some 25,000. If a similar figure is attributed to the Arabs and the nomad population is taken as stationary the total population of Palestine, apart from His Majesty's Forces, should be about 1,417,000, of whom just under twenty-nine per cent. are Jews. The greater part of the Jewish increase was in the form of immigration. The number of recorded Jewish immigrants shows considerable variations from year to year, rising to the highest figure of 65,063 in 1935 and falling to 21,183 in 1936. These figures include visitors who remained in the country. The fall in Jewish immigration has been progressive for the greater part of the year. For instance in December, 1935, 4,563 Jewish immigrants were registered ; in December, 1936, 815.

From the figures of births and deaths it appears that in Palestine as elsewhere both the Jewish birth and death rates are lower than those of the surrounding population. The Moslem birth-rate in 1936 was 53.14 per 1,000, practically the highest for fifteen years, and that of the Jews 29.74, the lowest during the same period. On the other hand the Moslem death-rate was 19.97, the lowest for the same period, and that of the Jews 8.82 also the lowest except for the previous year (8.58). In all cases the figures for Christians, who include a number of Europeans, fall between the other two sets. The low death-rate among Jews is to be accounted for in part by the large proportion of young adults in that section of the population. The infant mortality rate among the Jewish population is 68.70 per 1,000, just half of that among Moslems. In both cases considerable reductions on the figures for 1922–5 are shown.

Statistics of an entirely different character are those relating to the economic position. There are several elements that go to make up the picture which however is not complete. Nor can it be so. So many imponderables must be included in the economic picture of any country and Palestine is by no means an exception in this respect. Thus it is possible only to draw out of the monthly bulletins of the Office of Statistics figures that relate and leave to the reader the weaving of these figures, supplemented by other information that cannot be expressed in figures, into a complete pattern which should give a picture of the economic position of Palestine. And first to return to immigration. Of the 64,147 immigrants[1] who were registered in Palestine in 1935, 6,398 possessed at least £1,000. In 1936 the comparative figures were 31,671[1] including 3,014 with a similar capital. Palestine has always—since the British occupation—suffered from a big gap between imports and exports. This was as great as £13,638,000 in 1935. The latest figures under these heads stop at the end of November, 1936. The comparison between the first eleven months of the two years shows total imports for 1935, exclusive of bullion and specie, £16,382,774 (1936, £12,494,912); total exports, £3,709,916 (1936, £2,762,447). The imports of food, drink and tobacco and of unclassified articles showed increases. Those of raw materials fell more than thirty-one per cent. and manufactured articles almost forty-two per cent. On the other side the exports of food, drink and tobacco fell by over thirty per cent., mainly in the form of citrus fruits, but the export of manufactured articles increased by fifty-four per cent., but only to £135,743 in all. The tonnage of shipping entered and cleared also showed reductions, of about nine per cent. under the former heading and to a larger extent under the latter. Railway traffic showed a reduction in the earlier part of the year, but there was a considerable recovery later. On the whole the railway revenue showed an increase, but the number of passengers carried fell by two and a half per cent. and goods tonnage by fifteen per cent. The explanation of the apparent discrepancy lay in the longer journeys. For six months of the year—during which movement was considerably restricted—

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[1] Immigrants registered do not necessarily enter Palestine during the year of registration.

road competition was practically eliminated. On the other hand postal and telephone business showed a considerable increase—ten per cent. reckoned in receipts. Both wholesale and retail prices rose in the course of the year, although there was a slight drop in December. Retail prices rose 16.6 per cent. between March, 1936, and January, 1937. For the nine months of the financial year the Government revenues fell by £1,160,412 and the expenditure increased by £220,262. Considerable additional expenditure was incurred, but had not been brought into account by the end of December. Ignoring this additional expenditure which will considerably exceed the apparent surplus of the year, the accumulated surplus of the Palestine Government, accrued during the recent years of plenty, was increased by £104,848 to £6,372,653. The currency in circulation rose from £4,779,000 in January, 1935, to £5,741,000 in December, 1936, the highest point being in October, 1935 (£7,545,000) when there was a minor banking crisis. The total sums at the banks, of which there are about eighty in business, and Jewish credit co-operative societies, were £16,781,000, of which £11,163,000 was on current account. The paid-up capital and reserves of the seventy local banks amounted to £1,631,000. The total of customers' money held by all the banks—foreign and local—working in Palestine was £14,139,000, and the currency and bullion in hand £690,870. On 31st December £9,677,000 was on loan to customers. In considering these figures it should be remembered that during six months of the past year Palestine was in a state which cannot improperly be described as rebellion, and in the course of that period the greater part of the population abstained, as far as was possible, from all commercial activity.

The consumption of electricity shows a consistent and extraordinary increase from the day on which it was first made available. In 1927, the first complete year, there were 7,477 consumers and 2,527,126 kilowatts sold. In 1935, the latest complete year for which figures are available, the comparative figures are 53,246 consumers and 50,362,193 kilowatts. The first eleven months of 1936 showed a further increase of thirty-three per cent. on those of the previous year. Building activity in the four principal towns which continued to rise until June, 1935, in which month permits for 147,240 square metres were issued, then began to decline. A recovery was apparent in April, 1936, but the outbreak of that month brought the figures down again, the lowest being 39,706 in October, 1936. After the end of the disturbances there was a further recovery, and permits for 65,097 square metres were issued in the last month of the year, a figure very little below that for December, 1935. The total for the year, 1936, was, however, thirty-nine per cent. below that for 1935. All the towns showed a reduction, the largest being in Tel Aviv and Jaffa. In 1935, 306 new companies with an authorized capital of £3,117,000 were registered. In the same period existing companies increased their capital by £1,915,000. Comparative figures for 1936 are £1,038,000 and £833,000. On the other hand protested bills rose from 7,264 in 1935 to 10,111 in 1936. The increase set in in October, 1935, and the figures continued high until August, 1936.

The foregoing brief summary by no means exhausts the information given in these very valuable bulletins. Those interested in, for instance, Naturalization, the Agricultural situation, Fisheries, details of Foreign Trade, Land Transfers, Police Statistics, can obtain a wealth of information from the General Monthly Bulletins, while supplementary bulletins not only extend this information in many particulars, but also deal with other subjects such as Wage Rates.

THREE ANCIENT JEWISH RELIEFS

By L. A. Mayer and A. Reifenberg

At various times there have been found in Palestine, Syria and Egypt flat reliefs or round figures of soft limestone, wood or other material with circular openings inset with glass. Some of them represent male or female figures, others represent birds, such as doves or peacocks, and some are but square, many-sided or round frames for glass insets. Father L. Cré, who knew but a single object of this type in the shape of a bird (he regarded it as a peacock), saw in it an eucharistic vessel.[1] Macalister[2] made this theory his own and applied it to a specific case. Moulton[3] went a step further and pronounced all objects of this type to be eucharistic, whilst others[4] have described them as mirrors, amulets, votive offerings or children's toys.

Among several such flat reliefs in the collection of the Benedictine Fathers in the Monastery of the Dormition in Jerusalem, three are of outstanding interest.[5]

The first relief (fig. 1), 26 cms. long, 31.5 cms. high, 3.5 cms. thick, represents the pedimented or gabled wall of a building. A large opening or portal which rises above the base of the gable consists of a square headed door surmounted by a circular panel or tympanum ornamented with four small columns. On either side of the doorway are four vertical slits, in part masked by seven-branched candlesticks on tripods placed in front of them. In the gable above a shell-like semi-circular niche is represented. On either side of this niche shallow semi-circular recesses have been cut out, and in the centre there is a similar but circular recess. These recesses once contained glass, splinters of which were found in position. The lower end of the whole relief is finished off with an animal frieze showing two long-beaked birds pecking at a third of a similar species.

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[1] 'Une découverte eucharistique' (in *Revue Biblique*, 1894, vol. III), pp. 277–91.

[2] *The Excavation of Gezer*, 1912, I, p. 387 f., II, p. 455.

[3] 'Gleanings in Archæology and Epigraphy' (in *Annual of the American School in Jerusalem*, vol. I, 1920), pp. 70–86.

[4] Strzygowski, *Koptische Kunst* (in *Catalogue Général des Antiquités Egyptiennes*), 1904, No. 8825, p. 144; Kisa, *Das Glas im Altertume*, 1908, II, pp. 357–61; Michon, 'Miroirs antiques de verre doublé de plomb' (in *Bulletin archéologique du Comité des travaux historiques*, 1909), pp. 231–50; Ronzevalle, 'Some alleged Palestinian pyxes' (in *Quarterly Statements*, 1921), pp. 172–4.

[5] We avail ourselves of this opportunity to reiterate our warmest thanks to Father Mauritius Gisler for permission to photograph and publish these objects.

The second relief (fig. 2), 48 cms. long, 34 cms. high and 2.3 cms. thick, is more complicated. A seven-branched candlestick without base is closely flanked by two gables or pediments, each supported by two columns, and provided with a semi-circular aperture. Above the candlestick is a semi-circular arch supported by a pair of columns. The panel or tympanum of this arch again is ornamented with two small columns. Flanking the architectural ensemble are two representations of large birds. The shallow circular recesses in each of the three niches, as well as those that form the eyes of the birds, once contained pieces of glass.

The third relief (fig. 3), which is fragmentary, 20 cms. high, 2 cms. thick, includes portions of a seven-branched candlestick and of a niche with one column, two small columns marking a window and one bird in the upper field. Below these columns and above the candlestick is a shallow circular recess which by analogy with the other reliefs we may assume to have once been fitted with glass. Owing to the striking similarity of many details we may assume that but for the birds this relief looked almost exactly like fig. 2.

All three reliefs are made of very soft white limestone. The first two have small holes (fig. 1 above the niche in the gable, fig. 2 behind the leg of each bird), as though intended to be suspended as wall-ornaments.

How are these plaques to be interpreted? The seven-branched candlestick, one of the few Palestinian symbols which belong to one community alone, proves the Jewish origin. This in itself would hardly be sufficient proof that the stone-carver meant to represent the wall of a synagogue, but the composition of the three reliefs, particularly of the two complete specimens, the prominence given to the candlesticks as well as the niches in the upper floor, show that we are confronted here with religious monumental buildings, in this case with the walls of a synagogue. Thus we shall interpret the first relief as the façade of a synagogue approximately of the type of the one in Capernaum, as reconstructed by Kohl and Watzinger.[1] In view of this close resemblance one inevitably looks for differences. These are to be found in the two candlesticks of the first relief, presumably placed there to dispel any possible doubt, even in the mind of the most casual observer, regarding the character of the building. The second relief cannot well be anything else than the main inner wall of the synagogue. The double shrine of the Law each flanked by a pair of columns and crowned by a shell is also familiar to us from Capernaum[2]; nor need we look far for parallels for the niche high up in the wall.[3] Thora-shrines with gabled roofs and shells[4] have frequently been found, or assumed on the strength of the fragments found.[5]

The most difficult to explain are the birds. Once the opposition to eagles as symbols of Roman power had been overcome, birds were certainly met with in various synagogues of the Roman period in Palestine,[6] as in Capernaum, al-Jish, ad-Dikke, Umm al-Qanāṭir, although never of such relatively huge shape. Small birds repeatedly figure as acroteria on thora-shrines.[7] The nearest design is that on a gilt glass[8] where the thora-shrine is flanked by two birds closely resembling those on the

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[1] Kohl and Watzinger, *Antike Synagogen in Galiläa*, 1916, pl. V, but compare also with the façade of the south wing of the Church of St. Simeon Stylites at Qal'at Sim'ān, Butler, *Early Churches in Syria*, fig. 101.

[2] Kohl and Watzinger, *l.c.*, p. 37.

[3] We are dealing in detail with this problem in our forthcoming report on the excavations of the synagogue of Eshtemoa, meanwhile *cf.* our 'The Jewish Buildings of Nawe' (in *Bulletin of the Jewish Palestine Exploration Society*, 1936), p. 7f.

[4] Ben-Zevie, 'Discoveries at Pekiin' (in *Quarterly Statements*, 1930), p. 213f., pl. II, 2; Sukenik, 'Designs of the Torah-Shrine in ancient Synagogues in Palestine' (in *Quarterly Statements*, 1931), p. 22 ff; id. *Beth Alpha*, pl. VIII.

[5] Kohl and Watzinger, *l.c.*

[6] Kohl and Watzinger, *l.c.*, p. 195 ff.

[7] Sukenik, *Beth Alpha*, pl. VIII, fig. 35.

[8] *The Jewish Encyclopædia*, vol. II, p. 107 (after Garrucci) and often elsewhere.

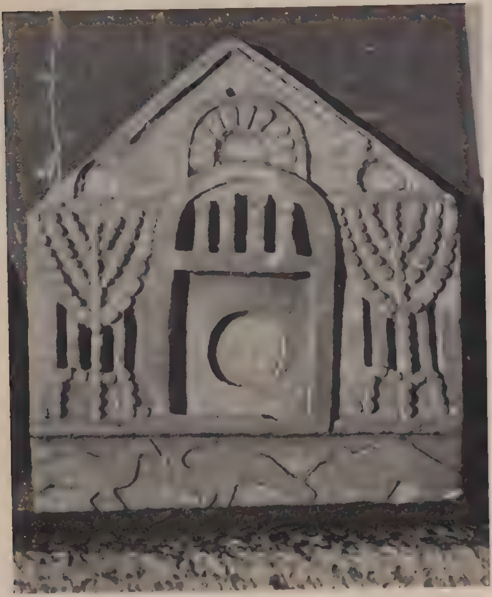

FIG. 1

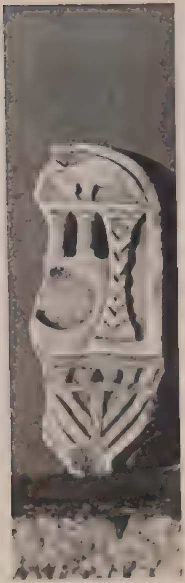

FIG. 3

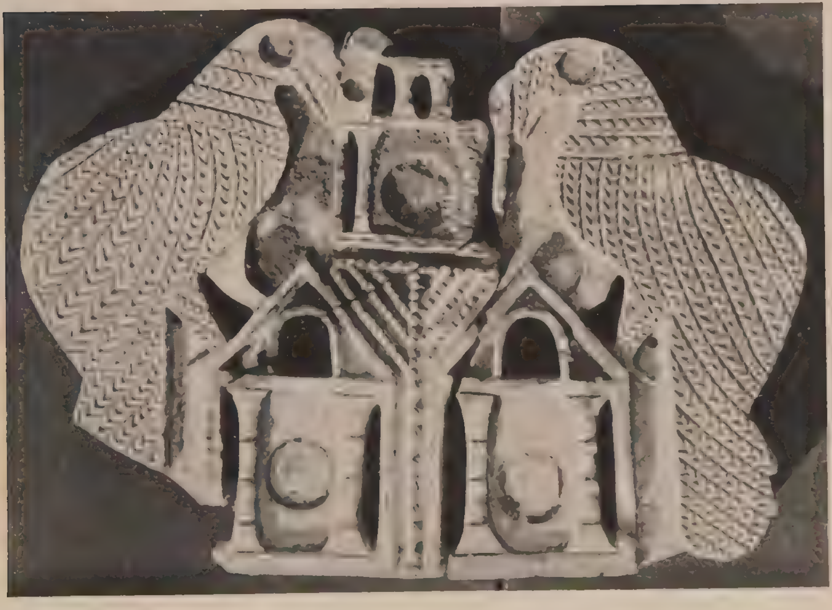

FIG. 2

second relief. One is tempted to explain these birds as cherubim, the representation of which in their original form—probably in the shape of gryphons—was forbidden[1] by Jewish law.

Representations of the Temple, of synagogues and of the Ark of the Law are common enough on mementoes of many kinds and do not require any special explanation as such. The novum of our reliefs lies in the fact that—to judge by the holes—they must have been kept fixed to a wall and so are *mutatis mutandis* in a way the prototype of the so-called " mizraḥ-pictures," to be found on the eastern wall of orthodox Jewish houses, indicating the direction of the prayer.

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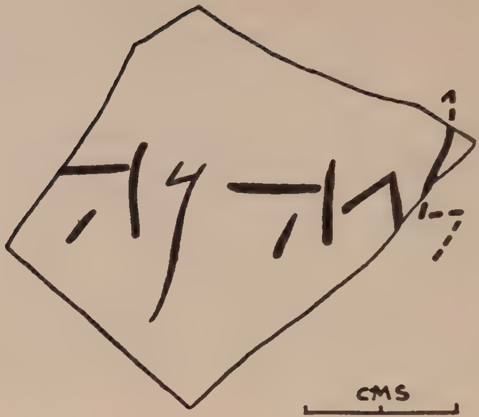
[1] *Mekhilta Yethro*, ed. Horowitz, 241, l.20. We have to thank Prof. J. N. Epstein of the Hebrew University, Jerusalem, for having called our attention to this passage.



A FURTHER NOTE ON AN INSCRIBED POTSHERD

By E. L. Sukenik
(Hebrew University, Jerusalem)

Professor Staple's objections to my reading of the Samarian sherd—published in the Quarterly Statement, 1936, pp. 34ff.—are based on two grounds:

(a) the purpose of writing the Divine Name on a pot, and, what is more, in its full form, and
(b) a tracing of the inscription which he prepared from the plate accompanying my article, showed him a group of letters other than those proposed by me.

Let us deal, first, with his epigraphic objections: I had the advantage over Mr. Staples in that I had before me the sherd itself from which the accompanying tracing was prepared; and I would ask scholars desirous of making other observations on this sherd, to use the accompanying tracing as the basis of their study.

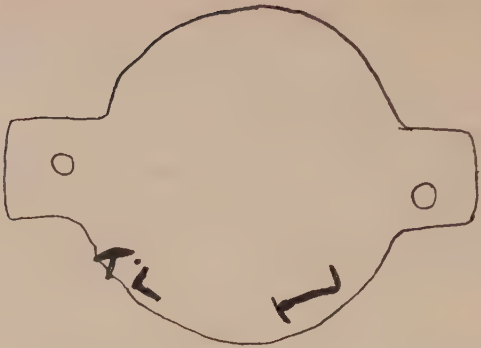
A cursory glance at the tracing is enough to show that the reading לצדני is out of the question. There is no triangle whatsoever above the horizontal stroke of the third letter. Nor does the final vertical stroke of the last letter cut the angle formed by the vertical and horizontal lines of the ה. This form of the ה—of which we have, here, two instances—is quite common in Aramaic script. There is, therefore, no doubt at all about the reading of these two letters. The first letter is read as ל by Mr. Staples, too. Admitting that the י is longer than usual, I proposed the only reasonable reading of this group of letters : namely, ליהוה.

With regard to Mr. Staple's other objections, I have to point out that the form יי does not occur at this period. The substitution of השם for the Divine Name is used in Talmudical literature, but there is no indication of its having been in use at an earlier period. Even in the Talmudic period, the objection was, probably, mainly to the utterance rather than the writing of the Divine Name. Relating to the Temple, we have an explicit statement in the Mishnah, *Soṭa VII*, 6 :

ככהבו במקדש אומר את תשם ובמדינה בכינויו

(" In the Temple they pronounced the name as it was written, but in the provinces by a substituted word."—Danby.)

If my reading is correct, then the contents of the vessel in question appertained, in some form or other, to the Temple ritual. A similar designation was found on vessels of earlier periods, in Megiddo and in Samaria—(see my above-mentioned article)—and if Mr. Staples accepts the reading in the other instances, I fail to understand his objections, on these grounds in this case.



AN ARCHAIC INSCRIPTION FROM LACHISH

By Theodor H. Gaster

Among the objects discovered in 1936 by the Wellcome Expedition at Tell Duweir (Lachish) was a censer-cover on the reverse of which were three characters, written around the rim. It was at once seen that these characters belonged to the same archaic alphabet as appears on the now celebrated Ewer, as well as on the Bowl discovered in 1935. The interpretation of them has, however, so far remained an enigma. I venture now to propose an explanation which I feel confident will meet with the approval of palæographists.

Reading from right to left, the characters may be identified as Z GW. The *zayin* is that which appears on the ‘Ain Shems Ostracon, Obverse II, 1. It is also akin to the usual " Sinaitic" and "Phœnician" forms. The *gimel* is of the common "Sinaitic" type. The *waw* accords with early "Phœnician" types. Moreover, if the dot which precedes it is really the vestige of a top stroke, it will be identical with one of the characters on the Ewer, rightly read as *waw* by Burrows.

The large gap between the first and second letters of the inscription show that the legend consists of two words. The first is, therefore, contained in the monoliteral Z, and hence this must be the usual Semitic word for " this is " (Hebrew *zeh*, &c.), similarly spelt in the oldest documents. The second word—GW—will then equate with Hebrew גו " back," i.e., underside (*cf*. Isaiah, 38, 17 ; 50, 6 ; 51, 23 ; Proverbs, 10, 13 ; 19, 29 ; 26, 3).

The inscription will accordingly mean: " This is the back, i.e., underside."

The purpose of the legend is clear enough. Its aim was to prevent the cover's being placed on the censer upside-down, thus charring the design which embellishes its top side. Moreover, it was itself written on the extreme edge to prevent its being smoked out. In a word, the inscription is the equivalent of a chalk mark which might be made in similar circumstances to-day to denote " this side up." The very fact that the legend is written in so odd a place shows that it is neither formal nor ceremonial in character.

It remains only to add that the letters might be read *downwards*, as often in the " Sinaitic " inscriptions.

REVIEWS AND NOTICES

On the Track of the Exodus. By Lieut.-Colonel C. C. Robertson, D.S.O., with a Foreword by the Rev. E. H. Thorold, C.B., C.B.E., M.A., D.D., Chaplain-General to the Forces. Gale and Polden, Ltd., 1936, pp. xvi, 107. 7*s*. 6*d*. net.

Colonel Robertson accepts Professor Peet's description of the route of the Exodus as a " happy playing-field for the amateur " and throws himself with refreshing zest into the game which has now become so popular. There are, as we know, two ways of playing it. On the one hand you may concentrate upon the " miraculous " phenomena and frame your theory of the route upon your explanation of the Red Sea catastrophe, the Pillar of Cloud and Fire, &c. This was the method adopted by Major Jarvis in his delightful book *Yesterday and To-day in Sinai*, and by the present reviewer in *The Call of Israel*. Or, on the other hand, you may reject the inverted commas around " miraculous " and map out your line of march unhampered by considerations of strictly scientific probability. This is the method adopted by Colonel Robertson. His theory may be stated briefly as follows. The Exodus took place at the end of the Hyksos domination : in fact the disaster which befell the Pharaoh and his army precipitated the defeat of these foreigners by the native Egyptians. Moses, the adopted son of Bithiah the daughter of Pharaoh and wife of Prince Mered of Judah (I Chron. iv, 18), was the great commander that he is pictured by Josephus and held at this time a position of almost sovereign power in Egypt. He was thus able to organize the departure (not flight) of Israel with all the resources, including sea-transport, which their position in the land of Goshen afforded. His line of march followed the western shore of the Gulf of Suez to Arsinoe (Migdol), opposite Tor in the Sinai Peninsula. Here his flotilla of ships was waiting to transport the people (numbering three millions) to the further shore, but the miraculous drying of the sea (partly by the east wind, partly by evaporation, but in any case by the direct action of the Supreme Being) allowed them to cross the gulf on foot. Thence, while the flocks and herds were convoyed across the peninsula to the head of the Gulf of Akabah, the main body was transported in relays by sea to the same rendezvous, the whole nation reassembling at Mount Sinai-Horeb which lay just south of Mount Seir in the land of Midian. The succeeding events of the forty years are summarized in a concluding chapter.

It will be evident from this brief sketch that the author's conclusions will not in the main be endorsed by modern scholars who realize that the problem is infinitely more complex than it may seem to the amateur. Nevertheless, we may be grateful to Colonel Robertson for insisting that Midian not the Sinai Peninsula was the " immediate objective " of Moses, and more particularly that the grandeur of the Mount of God was due not to its loftiness but to the phenomena which attended the Theophany. " The idea of Moses with the seventy elders of Israel scaling this great height [the traditional 7,450 feet] is not a reasonable proposition. It is accessible to ibex and the wild goat, but ceremonial dignity is not associated with violent exertion. The need for fencing off a mountain would not arise." That is well said, and it is pleasant also to read the rabbinical comment which the author quotes on this question : " Tabor and Carmel came from the end of the world, priding themselves on their height and saying, ' We are high, and the Holy One, Blessed be He, will give us His Torah.' But Sinai humbly says, ' I am low,' and therefore God put His glory upon it." For the rest, while we cannot agree with the Chaplain-General, who says in his Foreword that this is the best book on the subject which he has ever read, we can recommend it as a stimulating exercise of the imagination undertaken by a man who is obviously enthralled by the magic of the Bible story. Uncritical readers will probably find it fascinating, while even those who know the pitfalls of this road will enjoy the company of so cheerful a fellow-traveller.

W. J. PHYTHIAN-ADAMS.

Hebrew Origins. By T. J. Meek, Professor of Oriental Languages, Toronto University. Harper, 1936. $2.

This is an interesting and provocative book. It is not long (203 pp.), and is easy to read, but it is rather strong meat for the non-specialist reader. " All of biblical tradition cannot be accepted as facts, but facts do lie behind and within the historical records, and it is the task of the historian to discover these facts, and give them their true setting." This is what Professor Meek sets out to do, in his discussion of Hebrew origins—the origin of the Hebrew people, of Hebrew law, of the Hebrew God, of the Hebrew priesthood, of Hebrew prophecy, and of Hebrew monotheism.

He reconstructs the history somewhat as follows : The Ḥabiru of cuneiform inscriptions and the 'Apiru of Egyptian inscriptions are equated with the Hebrews. These people invaded Canaan in successive waves, one a part of the Hurrian Migration to the West (c. 1800 B.C.), with which Abraham is connected ; the second, an infiltration of allied tribes from the North (c. 1400 B.C.), with which the invasion under Joshua is identified—a northern confederacy being formed, and a simple Code of Laws accepted at Shechem ; the third, the immigration of a small number of Hebrews, led by Moses from Egypt (c. 1200 B.C.). The latter were chiefly Levites, who amalgamated with the Judahites, already settled in the Negeb, and with the Simeonites, Kenites and Calebites to form a Southern Confederacy, with its own Code of Laws, accepted at Kadesh. This confederacy later pushed northward from the Negeb into South Canaan.

This theory of Professor Meek's, by which he transposes Moses and Joshua, is, as he notes, not accepted by " the English School." His argument appears to be somewhat inconsistent, as, although he places no reliance on Biblical order or chronology, he yet invokes it in aid of his theory : e.g., 1400 B.C. for the second invasion agrees with the Biblical date of 480 years before Solomon's reign (960 B.C.) ; 1175 B.C. for the third invasion agrees with the duration of the rule of the eight Edomite kings before Saul (1020 B.C.), and so on.

According to his theory, Israel and Judah were two separate nations, as separate as the Babylonians and the Assyrians. And these peoples had separate religions. After referring to the

" naturism " (animatism) of the very early Hebrews, of which traces clearly survive in the Old Testament, the writer asserts that the people later practised ancestor-worship, quoting Dr. Oesterley in support of his view. But Dr. Oesterley himself draws a distinction between ancestor-worship and the cult of the dead, the latter of which he finds among the Hebrews. Professor Meek rejects the idea that Moses originally learnt about Yahweh from the Kenites, and believes that Yahweh, a god of S. Arabian origin, having been accepted as the God of Judah, became after the formation of the Southern Confederacy the god of the united tribes. Later, when David ruled over the Northern Confederacy as well as over the Southern, Yahweh became the god of the whole people. Meanwhile, the Northern Confederacy had received from Aaron, an *Ephraimite*, the cult of the bull, not regarding the bull as a symbol of Yahweh, of whom they knew nothing, but as a symbol of Adad, the fertility god, often known as Ba'al. The worship of Yahweh in the north was introduced by the Levites, who were, in the author's opinion, in origin a tribe, and not a priestly caste. Their original god was a serpent deity, Naḥash—*cf.* Moses' rod, the image of the serpent in the wilderness, the connexion of the name Levi with Leviathan, and the serpent-names in the family of Moses. The association of the Levites with Yahweh-worship is explained thus : the Levites were at first a secular tribe, whose frustrated bid for political power led to their transformation into a professional priesthood—they " made up in religious prestige what they failed to obtain politically." Then, having become the priestly order of Judah, they became priests of Yahweh, grafting some of their former serpent-religion on to the Yahweh-cult. The bull worship, supplanted in the north by Yahweh-worship about the time of David, was at the Disruption reinstated by Jeroboam, until Elijah's protest led to the re-establishment of Yahwism.

Professor Meek's reconstruction of the development of law and of prophecy follows more familiar lines. With the " thorough-going " monotheism of the great prophets, and its culmination in universalism, " origins ceased."

Although, perhaps, the " English School " will, even now, not be prepared to accept the whole of Professor Meek's reconstruction of Hebrew history and religion, those who read the book will find it interesting as well as provocative.

There are a few misprints: on page 8, note 14, " Babylonishe " for " Babylonische "; on page 161, " Shemiah " for " Shemaiah "; E. B. Tylor, the author of *Primitive Culture*, twice appears as " Taylor " on page 127, note, and in the Index; " E. L. Curtis " in Index should be S. L. Curtiss; " J. C. Gadd " should be C. J. Gadd, and " W. von Sodon " should read " von Soden." The point indicating " Cheth " is absent from pages 15 to 75, and in the Index.

E. W. Hippisley.

Clara Rhodos Studi e materiali pubblicati a cura dell' Istituto Storico-Archeologico di Rodi. Vol.VIII, 1936.

The island of Rhodes has been more or less intimately connected with Palestine at various times. Rhodian exports have been found on Palestinian sites of the Middle Iron period and in the Hellenistic age there was a lively trade in Rhodian wine vessels. Later still it was to Rhodes that the Knights of St. John fled after the fall of Acre. There is, however, nothing in this volume which bears very directly on the subjects with which our readers are chiefly interested, though two long articles are devoted to the medieval buildings of the Knights: they are both written by the architect, P. Lojacono, fully documented and profusely illustrated with recent plans and with illustrations taken from the older travellers. Other articles are devoted to the cemeteries of Ialysos excavated in 1934 (the finds in these date from the Geometrical and Oriental periods downwards and they are published on the same lavish scale as the buildings): a red-figured *pelike* found on the island of Cos, and an inscription found in the Palace of the Grand Master which throws light on the personnel of a Rhodian warship in the first century.

The volume is an illustration of the interest which the Italian Government is taking in the archæology of the islands.

J. W. C.

Problems of the Hebrew Verbal System. By G. R. Driver, M.A. Old Testament Studies, No. 2. T. & T. Clark. 7*s*. 6*d*. 165 pp.

It is now forty-five years since the appearance of the book which has been a familiar friend to several generations of

Hebrew students under its abbreviated name of *Hebrew Tenses*. In it the late Professor S. R. Driver embodied in compact form the fruits of many years of profound and penetrating study of the Semitic family of languages, in which branch of studies the book was a notable landmark.

To one who was privileged to be a pupil and a friend of the great scholar who served his generation so faithfully in the field of Old Testament studies, it is a peculiar pleasure to record the appearance of a book by his son, G. R. Driver, which is, by reason of its originality and sound scholarship, an even more notable landmark in the same field of studies.

The late Dr. Driver was a formidable opponent. No vulnerable point in an adversary's position escaped his eagle eye, but in controversy he was always impersonal, impartial, and resolute in the pursuit of the truth. These qualities mark the work of his son.

The book is of first-rate importance, and marks a new departure in the application of the comparative method to Semitic linguistic studies. Perhaps for the first time full use has been made of the immense advance of recent years in the knowledge of the Mesopotamian languages and literature. The book also shows how greatly linguistic studies have benefited by an alliance with the kindred disciplines of archæology and history.

The *Problems of the Hebrew Verbal System* are obviously not to be approached save with due seriousness, but the present reviewer must confess to having found the opening sections of Mr. Driver's book as entertaining as a mystery story. The successive claimants to the honour of primogeniture, so to speak, that is, of representing the simplest form of the verb from which all other forms have been developed, are subjected to a searching cross-examination which reminds one of the methods of a famous counsel in the Tichborne case. Mr. Driver's criticism of the theories of Bauer and Bergsträsser is most acute and illuminating, and he succeeds in making a dry and technical subject extremely interesting.

While, of necessity, much of the detailed philological discussion in the book will be of primary interest only to Semitic scholars, there is a great deal which vitally concerns students in the fields of semantics, comparative philology and archæology. It is particularly interesting to note the way in which the conclusions at which Mr. Driver arrives tally with the results of recent studies in the early civilization and religion of the ancient Near East. These conclusions are so admirably expressed in the opening paragraph of the last chapter of the book, that we cannot do better than quote it *in extenso* : " Hebrew tradition in the account of Abraham's coming from the Babylonian city of Ur through Haran into Palestine preserves the recollection, however dim and distant, of a Babylonian element, the Deuteronomist makes definite mention of an Aramæan, and Ezekiel speaks equally definitely of an Amorite as well as a Hittite, i.e., a non-Semitic, strain in the Hebrew people ; in other words, according to their own traditions the Hebrews must have been a mixed nation, drawn principally from the neighbouring Semitic races but containing also a certain amount of foreign blood. Moreover the *Ḫabiru*, who may be held, even if not to be the Biblical Hebrews, at any rate to have contributed an element to the Hebrew stock, must have been a mixed horde of robbers composed of refugees and outlaws from the surrounding nations, largely Semites, lying between the Elamite mountains and the Mediterranean Sea. It will then be natural to find something of this heterogeneous origin reflected in the Hebrew language ; for the speech of a people normally reflects its origin."

These conclusions should provide a necessary corrective to the tendency, still strong in this country, to depend too exclusively upon the theory of the Bedouin origin of the Hebrews, upon Arabic as the main criterion in Hebrew philology, and upon the obscure remains of pre-Islamic Arab religion as the principal source of what is characteristic in early Hebrew religion and custom.

Of prime importance for the teaching of Hebrew is Mr. Driver's criticism of the orthodox theory of *waw* consecutive, and of the so-called " prophetic perfect." Here he does not hesitate to lay hands on his father Parmenides, and shows clearly the defects of the theory of these forms as presented in *Hebrew Tenses*. Here, too, in particular does the value of the increased modern knowledge of Accadian appear, whereby for the first time a convincing explanation of these puzzling peculiarities of Hebrew syntax is arrived at.

Incidentally, this book will provide for a long time to come an indispensable guide to the fundamental principles of comparative Semitic grammar. The Old Testament Society is to be congratulated on its association with this notable piece of English scholarship.

S. H. H.

The committee have to acknowledge with thanks the following:

The Antiquaries Journal, January, 1937. Excavations near Antioch in 1936, by Sir Leonard Woolley.

The Expository Times, January–March, 1937. Recent Biblical Archæology, by J. W. Jack (March).

Great Britain and the East, January–March, 1937.

The Journal of the Royal Society of Antiquaries of Ireland, LXVI, II.

The New Judaea, January–March, 1937.

The Scottish Geographical Magazine, 53, I.

Syro-Egypt, I.

The American Journal of Philology, LVIII, I. The Byzantine Inscriptions of Bethshan-Scythopolis, by J. Starr.

The American Journal of Semitic Languages and Literatures, LIII, 2.

Bulletin of the American Schools of Oriental Research, December, 1936. Explorations in Eastern Palestine, III, by Nelson Glueck. Nehemiah's Tour of Inspection, by Millar Burrows.

Bulletin of the Metropolitan Museum of Art, New York, January–February, 1936. The Egyptian Expedition, 1936.

Geographical Review, January, 1937.

The Jewish Quarterly Review, January, 1937.

Journal of the American Oriental Society, 56, 4. Ras Shamra Notes VI: The Danel Text, by J. A. Montgomery. The Theophany of the God of Sinai, by Nelson Glueck.

Report of the United States National Museum, 1936.

Bulletin de la Société d'Apiculture, November–December, 1936.

Nouvelle Revue Théologique, December, 1936–January, 1937.

Revue Biblique, January, 1937. Les Décrets de Cyrus et de Darius sur la reconstruction du Temple, by R. P. R. de Vaux.

Archiv für Orientforschung, XI, 4. A propos du " serpent " du mythe de Mot et Alein, by Paul Humbert. Review of G. A. Barton : Semitic and Hamitic Origins, by S. A. Cook.

Orientalistische Literaturzeitung, January–March, 1937. Reviews of J. Cantineau, Grammaire du Palmyrien épigraphique, by Fr. Rosenthal ; R. H. McDowell, Stamped and inscribed Objects from Seleucia on the Tigris, by W. Kolbe ; Du Mesnil du Buisson, Le site archéologique de Mishrife-Qatna, by P. Thomsen.

Zeitschrift des Deutschen Palästina-Vereins, 59, 4. Die " Zinne" des Tempels, by J. Jeremias. Zum Ortsnamen Ezion-Geber, by L. Köhler.

Biblica, 18, I. Kinderopfer für Moloch oder für Jahwe ? by A. Bea.

Al Mashriq, October–December, 1937.

The Quarterly of the Department of Antiquities in Palestine, VI, 1–2.

ΝΕΑ ΣΙΩΝ, October–December, 1937.

Torah Shelemah, a Talmudic-Midrashic Encyclopædia to the Pentateuch, by M. Kasher.

The Annual of the British School at Athens, XXXIV.

Annual Report of the Smithsonian Institution, 1935.

Die Palästina-literatur, Vol. V, pt. I. Edited by Professor P. Thomsen. (Three copies.)

A Grammar of the Phœnician Language, by Z. S. Harris.

Die Verwendung von Synonymen im Alten Testament und die aufgefundenen Ras-Schamratexte. By S. Spinner.

THE PALESTINE EXPLORATION FUND

NOTES AND NEWS

Summer Closing.—The office and rooms of the Palestine Exploration Fund will be closed from Monday, 9th August, reopening Thursday, 9th September.

THE WELLCOME MARSTON ARCHÆOLOGICAL RESEARCH EXPEDITION TO THE NEAR EAST. The Fifth Annual *Exhibition of Antiquities from Lachish* will be held at the Wellcome Research Institution, 183–193 Euston Road, London, N.W.1, by kind permission of the Trustees of the late Sir Henry Wellcome. The exhibition will be open from 12TH JULY TO 7TH AUGUST, from 11 to 5 o'clock daily (Bank Holiday Saturday and Monday excepted). A film of the excavations will be shown at 1.301 a.m. and 3 p.m. daily. Late evenings, when the exhibition will be open till 8 p.m. are: 13th, 21st, 29th July and 6th August. The film will be shown on these evenings at 7 o'clock.

AN EXHIBITION OF RECENT WORK OF THE EGYPT EXPLORATION SOCIETY is being held in the rooms of the Palestine Exploration Fund, 2 Hinde Street, Manchester Square, W.1, from July 5th to 24th, 11 a.m.–5.30 p.m. daily, including Saturdays. Open till 8 p.m. Tuesday, 6th, Wednesday, 14th and Thursday, 22nd. Admission is free.

The closing paragraph of Sir Leonard Woolley's interesting account of his first season's work in the Amk plain given in *The Times* of 12th June is of interest in relation to Dr. Forrer's recent articles in this Journal on the Hittites in Palestine. It is worth quoting: "The splendid building with the colonnade and the big house of our fourth level are definitely Hittite; every detail of their architecture is reproduced in later Hittite buildings, and their pottery leaves no doubt upon the point. That they should be Hittite and should date back to the sixteenth century B.C. is a fact of real historical importance. The known Syro-Hittite buildings are late, and it has generally been supposed that the capture of Aleppo by Tudkalia of Boghazkeui about 1420 B.C. marked the beginning of Hittite domination in North Syria; a Hittite invasion of Babylonia by Hattusil late in the nineteenth century B.C. was regarded as a mere raid having no permanent consequences. Now we find the Hittites settled in North Syria long before the fifteenth century, quite possibly as a result of Hattusil's conquests; the frequent references in the Old Testament to Hittites living in Syria and Palestine in the patriarchal age, which have often been rejected as anachronisms, may yet prove to be sound history." It may, however, be remarked that the only references to Hittites in Palestine in the patriarchal age places them in the district about Hebron. If we accept with Sir Leonard Woolley the date of Abraham in the time of Hammurabi, we should have Hittites in the south of Canaan even earlier than Hattusil's invasion of Babylonia to which he refers. This is not impossible, but awaits proof.

Some interesting conclusions may be drawn from the independent publication by Jirku and Cerny of Palestinian names in early Egyptian texts. They suggest that as early as the beginning of the second millennium B.C. a population which may be called Hebrew had a footing in the extreme south of Palestine. This agrees with the narrative of Genesis which describes the wandering and sojourn of Abraham in the south of the Negeb of Judah. Dr. Jack suggests that many of these Hebrews may have found employment in the mines of Edom and Sinai long before Jacob and his family went down into Egypt.

The results of the excavation of Ras Shamra continue to yield striking points of resemblance with Hebrew traditions. In his latest report Dr. Schaeffer describes the discovery of a jeweller's scales and weights hidden beneath the floor of his shop. The significant point is that the weights appear to be based on a talent of 3,000 shekels, which was the early Hebrew standard, as opposed to the talent of 3,600 shekels which was the standard in Sumerian and Babylonian currency. Another interesting connection arises from the very full description of a marriage ceremony in one of the new Ras Shamra poems. We find that the Hebrew technical terms for the wedding-gift of the father to the bride and for the bride-price paid by the bridegroom occur in this text, suggesting that Hebrew marriage customs are based on ancient Canaanite usage.

Mr. Starkey has returned from his latest campaign at Tell Duweir, and gave a lecture on the occasion of the annual meeting of the Palestine Exploration Fund in the Rooms of the Fund on 18th June. See p. 171. His account of the season's work will appear in the October issue of this journal.

Semitic and Biblical studies have suffered a real loss by the death of Hans Bauer. It is sad to think that his last days should have been clouded by a controversy concerning the priority of discovery in the matter of the Ras Shamra alphabetic script. Whatever the merits of this controversy may be, there can be no doubt as to the value of the contribution made by this great scholar to Biblical studies and especially to the field of Semitic philology.

It is a pleasure to note that the Pelican series of cheap books has included among its latest issues Sir Leonard Woolley's valuable little book *Digging up the Past*, with illustrations. Another sign of the growing interest in archæological matters is the enterprise of the B.B.C. in initiating a series of popular talks on the "Archæological Background of the Old Testament," a series which was most admirably introduced by Professor Garstang. We hope that the B.B.C. will be encouraged to continue this good work.

That veteran archæologist, R. P. Vincent, has an important article in the current issue of the *Revue Biblique* on the results of the excavation of the site of the Biblical city of Ai in relation to the narrative in Joshua. In it he refers to "*le débat véhément dans la réunion annuelle du P.E.F.*" The discussion was, perhaps, not quite so vehement as the Reverend Father imagines, but we welcome his full account of the excavational results, and his admirable statement of the case for the historicity of the Biblical narrative. It is well known that Père Vincent still adheres to the later date for the Israelite conquest of Canaan, but he maintains that the results of the excavation of Ai are compatible with the historicity of the narrative in Joshua whichever date be accepted.

The Secretary of State has ruled that the official English spelling of Arabic and Hebrew proper names shall in future conform, not to the system recommended by the Director of Education, but to the first list of Palestine names prepared by the Permanent Committee on Geographical names and adopted by the Royal Geographical Society.

The principal difference between the R.G.S. system and the spelling on Survey of Palestine maps published between 1934 and 1937 is in the use of " e " instead of " a " for many Arabic sounds. Thus " el," " tell," " jebel " are used in place of " al," " tall," " jabal," &c.

The Hebrew " tsadi " is indicated by the letter " z" instead of " ṣ."

The change back to the R.G.S. system will be made gradually as new editions are published.

As mentioned in the issue of this QUARTERLY for April, 1937, a translation has been made of Dr. Schneider's very complete account of the ancient church at Tabgha. This translation has now been published under the title " The Church of the Multiplying of the Loaves and Fishes at Tabgha, Lake of Galilee, and its Mosaics." The account is very thorough and is admirably illustrated ; there are, in fact, over seventy illustrations, of which more than forty are full page plates. The fourth-century mosaics are of singular interest and deserve the careful and expert study which they have received.

Any reader of this QUARTERLY who requires a copy should write to Mr. Eneas Mackay, 44 Craigs, Stirling, Scotland, enclosing a postal order for 5*s*. 6*d*. It should be added that all profits arising from the sales of this book will go to Tabgha towards defraying the cost of preserving the mosaics and upkeep of the precincts.

The Department of Agriculture and Forests of the Government of Palestine has published (150 mils) its annual report for the year ending March, 1935, with an apology for its belatedness. It is a pity that it has been so long delayed, for apart from its value as a record, its usefulness has for the most part disappeared. Since the end of the period with which the report deals the department has been divided into two and there is now a separate one of forestry. Mr. M. T. Dawe, the director, writes a general review, and departmental reports dealing with agriculture, meteorology, veterinary service, forests, horticulture, entomology, sericulture, fisheries, and the Kadoorie Agricultural Schools follow. The book extends to two hundred foolscap pages. It gives a detailed account of the agricultural activities and developments in Palestine during the year with which it deals.

SEVENTY-SECOND ANNUAL GENERAL MEETING

Friday, 18th June, 1937

SIR ROBERT MOND, LL.D., *in the Chair*

THE SEVENTY-SECOND ANNUAL GENERAL meeting of the Palestine Exploration Fund was held at 2 Hinde Street, Manchester Square, London, W.1, on Friday, 18th June, 1937. Sir Robert Mond, LL.D., presided, and Mr. J. L. Starkey, F.S.A., lectured on "Excavations at Lachish as illustrating Bible History."

The HON. SECRETARY (Rev. C. B. Mortlock) announced apologies for absence from Mr. O. G. S. Crawford, The Rev. Canon H. Danby, Prof. J. Garstang, The Right Rev. the Lord Bishop of Portsmouth, The Right Rev. the Lord Bishop of Rochester, Sir George Adam Smith, and Mr. Sidney Smith.

MINUTES

The Minutes of the Seventy-first Annual Meeting, held on 26th June, 1936, were read and, having been confirmed, were signed by the Chairman.

REPORT AND ACCOUNTS

SIR CHARLES CLOSE (Chairman of Executive Committee), in moving the adoption of the Annual Report and Accounts for the year 1936, said:

Sir Robert Mond and members of the Palestine Exploration Fund, I beg to move the adoption of the Annual Report and Accounts for 1936. These have been printed and distributed to subscribers to the Fund, and you will, no doubt, desire that they should be taken as read.

By the death, as the result of an accident, of Lady Watson, the Fund has been deprived of the services of one who devoted much time to furthering its interests. She had been for many years our local secretary in Palestine, and we shall feel her loss greatly. As is well known to those present, she was the widow of the late Sir Charles Watson, who had been Chairman of the Executive Committee from 1906 until his death in 1916. She survived him for twenty years. The Fund owes much to Lady Watson. Many members who have visited Jerusalem in recent years will remember the curious and interesting house in which she lived, inside the walls of the old city. It is not, I believe, as yet certain, what is to happen to this house.

As to the activities of the Fund in Palestine, they are at present devoted to the carrying out, in conjunction with the British School of Archæology, as our joint undertaking, of the Archæological Survey of the country. This work has the approval of the Government of Palestine, and, but for the recent troubles, would have received its financial support. The survey is directed by a Joint Executive Committee, of which the Bishop of Rochester is Chairman, and on this Committee each Society is equally represented. The Committee held its first meeting on 20th November, 1936. The Director of the Survey is Mr. P. L. O. Guy, the Director of the British School. At home, the Honorary Treasurer of the Survey is Colonel Newcombe, and the Honorary Secretary is Mr. Crowfoot. In fact, the administrative apparatus is all ready for use, if only we could make a definite commencement in the field. Of course, a certain amount of preliminary office work can be, and is being, done; but the examination of sites in the field has been delayed by the unsettled state of the country.

Through the good offices of H.E. the High Commissioner, Mr. Guy has obtained temporary accommodation for the Survey in the buildings of the Dominican School. His Excellency has expressed his personal appreciation of the value of the scheme and his regret that, owing to the present situation, the Government of Palestine cannot help financially.

It is proposed to publish a Memoir for each sheet of the official map on the scale of 1 : 100,000, beginning with sheet 7, the Jaffa-Tel-Aviv sheet. The Director has made a list of some 400 known ancient sites in this area, including Gezer and Beth Shemesh. All these sites will be examined and reported upon, and, of course, any others which may be found will be similarly examined and described. Great care will be taken in the matter of the identification of ancient remains with sites mentioned in antiquity, for instance, in the Bible.

The survey also proposes to issue special monographs one of which may deal with the period of the Crusades, another with Moslem monuments, and so on. Clearly the whole programme will require many years for its completion. Perhaps, in conclusion, I may be allowed to draw the attention of those present to two show-cases in our museum, both arranged by Mrs. Crowfoot ; one exhibits the ivories from Samaria ; and the other contains a sequence of oil lamps, beginning with the lamps of the Bronze Age, showing the development of the lamp over a period of a hundred generations. Both cases are worthy of inspection. And there is one more exhibit, which probably few have seen before, namely, the incised, winged figure of Assyrian type which was cut out by Clermont Ganneau from the ancient quarries under Jerusalem, and presented by him to the Fund in 1874. This dates from the sixth or seventh century B.C.

COLONEL NEWCOMBE (Hon. Treasurer) seconded and the Report and Accounts were unanimously adopted.

EXECUTIVE COMMITTEE

MR. G. M. FITZGERALD formally proposed the re-election of the Executive Committee as at present constituted, with the addition of Miss K. Kenyon.

MR. F. W. GREEN seconded and the motion was carried unanimously.

APPOINTMENT OF AUDITORS

Messrs. Turquand, Youngs & Co., Chartered Accountants, were unanimously re-appointed Auditors for 1937.

THE CHAIRMAN : Ladies and Gentlemen,—You will have noticed from the last Annual Report that we have decided—and this point has come up like a recurring decimal—to revise, on an extended scale, what we did a number of years ago when the Fund first started the survey of Palestine under Sir Charles Wilson and Lieutenants Condor and Kitchener. That survey has grown, the technical part having been improved and worked out by the Government staff. The archæological section of the survey still requires doing, and that is going to be our task for the next few years. We have arranged, in consultation and in conjunction with the British School of Archæology at Jerusalem, to employ the Director of the School, the successor to Mr. Crowfoot, Mr. Guy, as a director of the new survey. As you have just heard from Sir Charles Close, this work is now to be taken in hand.

There is great archæological importance in survey, a subject on which I have preached for the last thirty years, and it is this : that there are archæological sites of much importance which are doomed to disappear because of the needs of living man. We cannot hold up towns or roads or anything else just because an archæological site exists. Man has to adapt himself to the country in which he lives, especially when there are a large number of people in a small country such as Palestine. Hence, it is absolutely essential that those sites which are bound to disappear should be completely and exhaustively recognized and examined beforehand, so that the knowledge which it is possible to obtain from those sites may not be lost to us for ever.

It is not so much according to the individual pleasure or fancy of the excavator that you pick and choose between the number of archæological sites or take the most interesting or most promising. What is really important is that those sites in the greatest danger of being destroyed should be chosen as those for prior examination, because once an archæological site is destroyed there are no means of putting it back again. We have seen so many examples of that. Careful archæological survey is the only means of ascertaining where those sites are. That is the job we are tackling. I am exceedingly glad that at last we are getting at it and doing it properly.

Otherwise the Fund is continuing its excavations. There have been, as you know if you have read the Annual Report, changes on our staff. Mr. Crowfoot, whose admirable work you all know, has retired to England and Mr. Guy has succeeded him. Mr. Guy, as Inspector of Antiquities in Palestine, has already a very good knowledge of what we have to do. He entered on his duties a little less than a year ago, and he promptly devoted himself to the task of putting the library of the British School of Archæology into working order. He found there were considerable gaps and it gave me pleasure to fill a number of them. (*Applause.*) The efficiency of the work of a society such as ours depends, in the last resort, on the necessary literary evidence available on the spot.

We are going to listen this afternoon to an account by Mr. Starkey of the last campaign he has been carrying out on the site of ancient Lachish. I have visited that site and I am sorry for all those who have not also had the opportunity of visiting it. It is one of the most magnificent sites I know. A flat table-top on a rather high hill in a beautiful landscape. Below the crest of the hill there is a complete line showing where the ancient walls ran ; on top of the hill there are the remains of the ancient palace and the temples and the ancient town. It is as beautiful a site as one could possibly wish to work on.

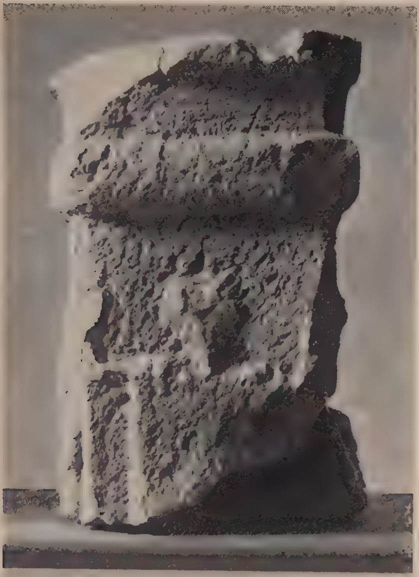
As in the case of all important sites in Palestine which have been occupied for many years, there are successive layers of buildings, successive occupations, successive towns of different periods which all need carefully examining, carefully exploring and carefully removing, layer by layer, in order that we may discover the history and evolution of those towns. This has been systematically done at Lachish, and if you realize the care and trouble with which the work has been done and bear in mind that acres of ground have to be carefully dealt with, strip by strip, you will see that it must necessarily be a long drawn out job. The work cannot be hurried ; it must necessarily be slow.

Modern appliances facilitate the disposal of rubbish and Mr. Starkey has adopted the excellent system of building up the old system of terraces of cultivation on the slopes of the hills, so that for the amount of ground taken out of cultivation because of the excavations he is creating new ground for the benefit of the local inhabitants. As a consequence he is working in harmony with the owners of the land and the workers on it. Anybody who has any practical experience of excavation knows the fundamental importance of establishing harmonious relationship with the workpeople with whom you are concerned. It makes all the difference whether they are going to be willing helpers or robbers. There are some who always will be robbers but, on the whole, if you work in harmony with those who are with you, I know from personal experience that it will be found that they will object to the robbers just as much as you do, and you will get the results you desire. It is entirely a question of being able to build up mutual confidence between the director and the people round about, confidence which is not difficult to obtain, but which necessitates certain characteristics. Those characteristics are, to a large extent, usually met with in most English people, an innate sense of justice and a large amount of forbearance, also the power of being able to keep one's temper. If you manage those three, then you get along fairly easily. Language and so on will be a minor detail. My own experience differs from that of some of my fellow-excavators in that I have found bribery of little avail as a help towards getting the best results. What is required is the confidence of the people and a happy spirit amongst them all. If you get that, whether you give them a little more backshish or not, makes little difference—I talk of Egypt rather than Palestine—and, as a matter of fact, I have found that by giving exaggerated backshish to certain individuals you are liable, as in England, to arouse petty jealousy rather than give general satisfaction. When you really find something very interesting and nice in Egypt it is more to the point to give all the workers a day's wage, whether they have anything to do with the find or not. That produces definite satisfaction all round, whereas if the whole sum is given to the individual who made the find—as a matter of fact, he found the object because he was told to dig at a certain place—you will probably find that everybody is intensely dissatisfied with the finder's good luck. Moreover, he will promptly go and get drunk on the strength of the reward, and that is not what you wish to contribute to.

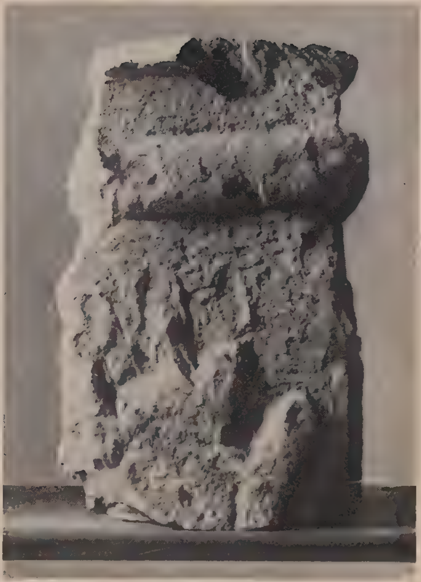
Mr. Starkey has been during the last two years chiefly engaged in removing the Persian occupation of Lachish. He is now getting down into the Hebrew layer where he was lucky enough in 1936 to find very interesting ostraca which created quite a sensation. In the course of time, we hope to find many more, but, as I have said, the work cannot be hurried. We shall go on systematically and slowly. We made the interesting and rather fundamental discovery that people were writing Hebrew about 200 years sooner than generally thought. Moreover, the people evidently wrote it with great fluency, which shows that it was the common language of the time and not merely that of a class It was the spoken and written language of the people about 700 to 600 B.C., about which I had been in doubt up to the time we made the find. We have also found other fragments of pots which contain letters from the early Sinaitic alphabet, one of the earliest alphabets we know. When dealing with very early alphabets every additional letter found is a great event ; a group of letters is, of course, an even greater event and renders the document a phenomenon. We are bound to find more as we go on.

The great advantage of working in such sites as Lachish is that by examining carefully the various layers we find different objects occurring together, which objects enable us to fairly reasonably estimate what was contemporaneous, what previous and what later. One can never take any object for granted. Any number of things may climb into all sorts of places and the fact that you find a very few objects where you think you ought to find many does not mean anything except that you have found the objects in question ; but when you do find a relatively fair number of objects, then you are able to employ, as in modern physics, the statistical method and by a means of a calculus of probability obtain some sort of knowledge as to whether you have found something of real value or not. Also whether the object belongs to the place in which it has been found, or has come from some other spot.

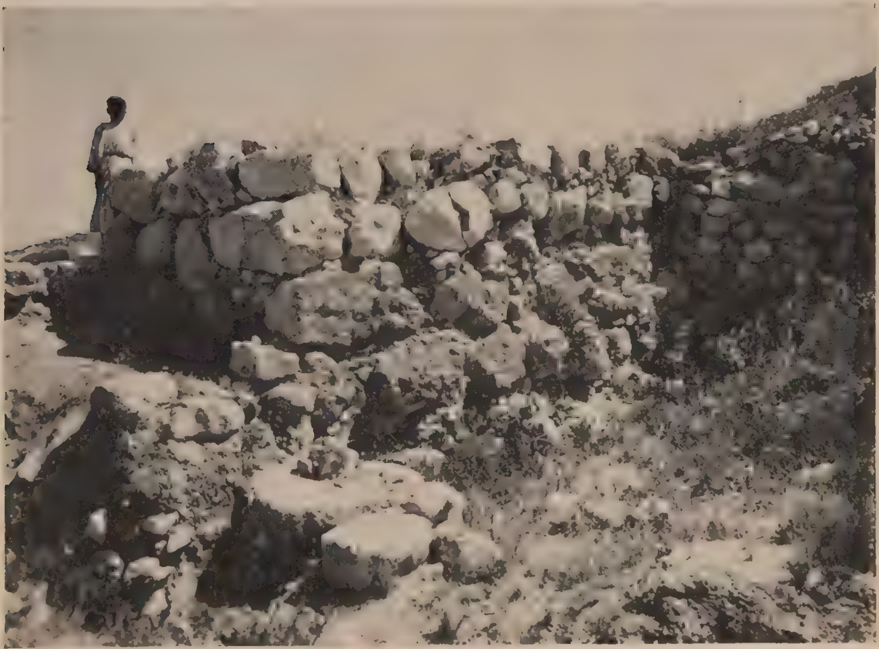
I have had disappointments in connection with some of the work I have done in Egypt. I had every reason to believe I had found a unique iron chisel of about 1500 or 1400 B.C., but the ground in which it was found was so turned over that it was impossible to say that was its place of origin. Nobody could honestly give a date to the chisel, though from the appearance of it and the way in which it was made it appears to be ancient. That is all that can be said. Those are the difficulties one meets with and which lead to disappointment. Because you happen to see photographs in the weekly papers illustrating one or two nice things that we have found does not mean that those things which look nice in a photograph in a newspaper are really the things that matter. The remarkable thing is that the more we know about matters the more the insignificant hings count.



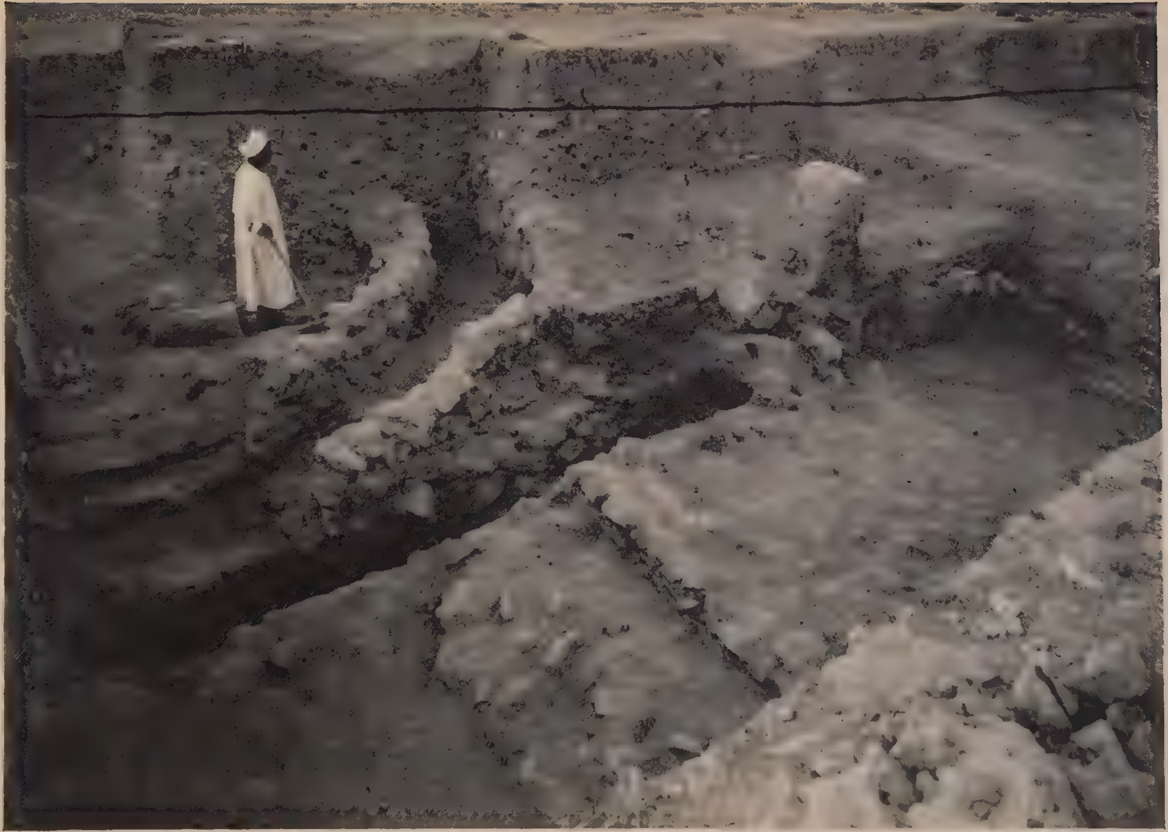
Upper part of a square limestone fire altar, showing head and shoulders of a bearded man, with arms raised



Opposite side of square limestone fire altar, showing a right hand, palm outwards and fingers spread, in deep relief



Base of eastern tower, flanking the outer gate at Lachish, in which the Letters were found. The two upper courses are re-building on the burnt masonry of an earlier structure. Boy marks floor level and ash layer



Looking down into sounding within city gate, showing earlier roadway covered with black ash, buried under debris of brick gate towers, sealed in below upper burnt road surface of the 588 B.C. destruction. Note the superimposed drainage channels. Black line indicates upper road level

As an example, it has been found in connection with early anthropology that a careful examination of the spores of mosses in peat bogs is about as good a method of dating anything as any other means we have yet found. At the new School of Archæology founded in Regent's Park there is an extremely clever young scientist, Dr. Zeuner, who from the size of a grain of sand and small pebbles is able to work out an approximate date which, when combined with the growth of rings of trees, gives a different line of approach to establishing a chronological sequence which previously we conceived to be absolutely impossible and under any circumstances unattainable. Hence our work is beginning to be more difficult because more painstaking. We may find fewer sensational objects, but we are continually turning up more and more objects from which we are able to learn of the past. We cannot always be excavating royal palaces, but we can ascertain how ordinary people lived in the past and, to a certain extent, that is more important. That is an immense satisfaction to all who are engaged in the work. I have now much pleasure in calling on Mr. Starkey.

"LACHISH AS ILLUSTRATING BIBLE HISTORY"

By J. L. Starkey, F.S.A.
Director: Wellcome Marston Archæological Research Expedition to the Near East

Last time that I had the pleasure of addressing this meeting in 1934, we were still devoting our attention at Tell el Duweir to areas beyond the city's fortifications—preliminary work necessary to provide a clear dumping ground for the great mass of debris from the city levels.

In the two first seasons we completed the excavation of the Persian Governor's residence and a large private mansion of the same period, with the typical oriental house plan—rooms arranged round a central courtyard. Perhaps the most interesting Persian remains was a building in the north-east area of the city, which we interpret as a solar shrine. Little has been found in Judah of this period in decent preservation, and this shrine is a valuable addition to the architecture of our district under Persian control. We do not know much of the details of the solar cult, which seems to have become popular after the return from Exile, at the time of Persian domination. In Ezekiel's vision of Israel's final destruction he says :

" Then he said unto me, Hast thou seen *this* O son of man ? Turn thee yet again, and thou shalt see greater abominations than these. And he brought me into the inner court of the Lord's house ; and behold, at the door of the temple of the Lord, between the porch and the altar, were about five and twenty men, with their backs towards the temple of the Lord, and their faces towards the east ; and they worshipped the sun toward the east." (Ezek. viii, 15, 16.)

The axis of the shrine is due east and west, and the entrance to the inner sanctuary is open to the rising sun. Neither entrance had been fitted with doors. On the flight of steps leading up to the sanctuary from the courtyard, we found a square limestone altar. On opposite sides was the figure of a man with upraised arms and a human hand in relief. A single right hand is a recognized attribute of the deity, when blessing or prospecting his votaries, while two hands raised are the usual oriental form of supplication. These symbols are found on funerary monuments elsewhere, and are almost exclusively associated with the Sun as God of Justice. We cannot date it exactly, but presume that it must represent the last phase of the re-occupied city, and may be even as late as the end of the third century B.C. A depression at the top indicates that it had been used as an incense altar, and it is but a more elaborate version of the portable votive altars of chalk stone, a large number of which were found in a cache in the saddle area, north of our camphouse.

The Persian levels of the road running up to the gate were cleared, together with the ruins of the gateways, which we see now were shoddily built on the foundations of the pre-exilic structures. It was on the road level below, that we first encountered the evidence that our city had been completely ravaged by fire. The road had been constructed of small stone rubbish and of brickwork from burnt buildings, and the whole surface had been burnt red to some depth.

For just how long Lachish remained a derelict city we have no direct evidence, but in Neh. xi, 30 we read that various cities were re-occupied by the returning exiles :

" Zanoah, Adullam, and in their villages, at Lachish, and the fields thereof, at Azeqah, and in the villages thereof. And they dwelt from Beersheba unto the valley of Hinnom."

From our recent work in the city levels it becomes emphasized that the city had utterly fulfilled the predictions of the prophet (Mic. vii, 13) " . . . the land shall be desolate because of them that dwell therein, for the fruit of their doings."

One of the most prominent figures in Judah's history, who remained for a short time after the cream of the professional and ruling classes had been sent into Captivity, was Gedaliah, son of Ahikam, whose short lived control during the earliest days of this intervening period, we are reminded of by the clay seal impression inscribed :

" For Gedaliah, He who is over the House."

(See QUARTERLY STATEMENT, October, 1935, pages 11 and 195).

Although we have no direct evidence that Gedaliah, the owner of the Tell el Duweir seal, is identical with Gedaliah, the son of Ahikam, there is every probability to assume it. He had always favoured the alliance with Babylon and his end is recorded in 2 Kings xxv, 24, 25 " And Gedaliah sware to them, and to their men, and said to them ' Fear not to be the servants of Chaldees : dwell in the land, and serve the King of Babylon, and it shall be well with you.' But it came to pass in the seventh month, that Ishmael the son of Nethaniah, the son of Elishama, of the seed royal, came, and ten men with him, and smote Gedaliah, that he died, and the Jews and the Chaldees that were with him at Mizpah."

I am indebted to Dr. Ben-Dor of the Palestine Museum for the following notes on the Overseer of the Palace :

The title " *'asher 'al habbayit* " or " He who is over the House," is met with seven times in the Old Testament. In all cases but one, " *habbayit* " refers to the Royal House. The only exception is Gen. xliv, 1, where the title is applied the Overseer of the House of Joseph in Egypt. But here we have the possessive suffix " *beyto* "—his house, which is omitted in all the other cases where " *habbayit* " means " the house " *par excellence*, i.e., the Royal Palace.

The bearer of this title belongs to the highest dignitaries of the state. He is a member of the highest council, and under Solomon, he is listed among the eleven ministers " *Hassarim asher lo* "—" the princes which he had " who help the king to administer the country. (1 Kings iv, 2–6). He maintains personal relations with the king, and Elah, King of Israel, is killed by Zimri while he is banqueting in the house of Arza, the Overseer of the Palace. (1 Kings xvi, 9.)

The Overseer of the House was present whenever the king had to send an official mission, be it concerning an internal affair, like the mission of Hezekiah to the prophet Isaiah (2 Kings xix, 2), or in the case of a diplomatic mission to a representative of a foreign power, like the embassy of Hezekiah to Rabshakeh, the Commander-in-Chief of Sennacherib's army, whom the latter had sent from Lachish in order to lay siege to Jerusalem. (Isa. xxxvi, 3.) This embassy consisted of Eliakim, the Overseer of the House, Shebna the Scribe and Joah the Secretary. It is obvious from the text that Eliakim was the head of the party and the chief speaker.

The office was also conferred upon the hereditary prince, like in the case of Jotham, who administers the country while his father Azariah is ill with leprosy. (2 Kings xv, 5.) It is just possible that the office of the Overseer of the House implied the regency of its holder for the time that the king was unable to perform his duties, and that Azariah had entrusted his son with this office, for fear that the regency should pass to an outsider, who would have to get it if he were nominated Overseer of the House.

From Isaiah xxii, 21, we learn about the insignia of the Overseer—a special robe and girdle. The following verses of the same chapter show us the full extent and the importance of his position : " and he shall be a father to the inhabitants of Jerusalem and to the house of Judah. And the key of the house of David will I lay upon his shoulder ; so he shall open, and none shall shut ; and he shall shut and none shall open."

It will be remembered that it was following the clearance of the Persian structures that we came upon the inscribed sherds underneath the foundation courses of the remaining Persian tower, flanking the outer gate. As you are aware, Professor Torczyner's study of these inscriptions has not only made clear their historical importance, but has revealed their special value to us in the identity of our city with an ancient fortress of Judah.

Letter IV, a message presumably from a man in charge of a military outpost, states in his concluding sentence :

" . . . we are watching the signal stations of Lachish, according to all the signals which you are giving, because we cannot see the signals of Azeqah."

Here then is the first piece of contemporary literary evidence, confirming the assumption that Tell Duweir marks the ruin of that great fortress which figures so prominently in the tragedies of Judah, as recorded in the Old Testament.

I don't propose to speak of the texts of the Lachish Letters, as we have hope that Prof. Torczyner's exhaustive discussion will soon be in your hands, but rather the historical horizon to which they belong, particularly to the date of the burnt level in which they were found.

It is, however, in Letter III that the first serious problem regarding their date is met with. The reference to the commander-in-Chief, Achbor the son of Elnatan, in which the writer tells us of his going down into Egypt, and in the following sentence refers to a warning letter that the prophet has sent to a friend by the hand of one Nedabiah, a relation of the King, leads Prof. Torczyner to the conviction that the " open-eyed one " or " Seer," mentioned here and elsewhere in the Lachish Letters, can be no other than the prophet Urijah, who, according to the Biblical account in Jer. xxvi, was put to death by King Jehoiakim.

The following season's work, gave the first suspicion that Lachish had been twice destroyed by fire within its last decade, and it was therefore obvious that a matter of first importance was to determine to which of these two burnings the ashes in which the Letters were found actually belonged. We have now corroborative evidence from three special areas, confirming that the small square chamber of the Letters belongs to the final rebuilding of the gate complex.

1. As soon as we removed the eastern half of the plastered floor, underlying the rough flagstones, large blocks of masonry were revealed with masses of loose burnt brickwork, and it is upon similarly damaged walling that the walls of the chamber are founded.

2. After the removal of the Persian residency, we exposed the beaten chalk floors of the last Jewish Palace-Fort—these were mostly still covered by a thick carbon deposit, while other plastered areas showed varying hues from black to blue-grey—evidence of the intense heat to which they had been subjected. The walls of this fort had all been demolished to floor

level by the Persian builders, but the upper surfaces of their foundation courses show the limestone blocks rent by thermal fractures and discoloured by heat. Where we have seen below these plastered floors, precisely the same conditions prevail, as we have already noted under the gate room of the Letters.

3. This season we have extended our work within the city gate, and on the higher ground to the east we have come down upon the chalk surface of the ancient roadway, which descends steeply as it nears the threshold of the inner gate. At this point we have cut a sounding down from the upper burnt road level and passing through a mass of collapsed brickwork and lime plaster, all burnt and mixed with charcoal particles, we have at a depth of eight feet come down upon the well-laid stone sill from which the chalk surfaced road begins.

A thick layer of black ashes not only covered the whole area exposed, but was also found blocking the channel of the drainage trench, which passes out at this point under the gateway, just below a similar drain, which belongs to the upper road level, whose fired surface marks the final destruction of the city, which we have all along assigned to the last attack of the Babylonians in 588 B.C., when Zedekiah was besieged in Jerusalem :

" When the king of Babylon's army fought against Jerusalem, and against all the cities of Judah that were left, against Lachish and against Azeqah: for these defenced cities remained of the cities of Judah." (Jer. xxxiv, 7.)

Although at this point we have eight feet of deposit between the two burnt road surfaces, nevertheless it is certain that the two levels can only be separated by a few years, vouched for by the fact that the pottery from both layers is homogeneous. It is most fortunate that we have at this point of the main road such a clear differentiation between the two surfaces ; owing to the destruction of the flanking gate towers, the gateway became choked with a mass of brickwork and plaster, thus damming up this natural drainage level of the southern half of the city. Certainly the road passing through the gate was always a sunken area. Against this piled mass the water-laid deposits accumulated and are clearly seen in the southern scarp of this sounding.

In view of these three pieces of independent stratigraphical evidence, which are further corroborated by other points in our recent work within the city, and the presence of the Gedaliah seal—exclusive of traditional history—there can no longer be any doubt that the gate or court room containing the Letters, belongs to the last rebuilding of the city between the two Babylonian attacks, and that the ashes are due to the final onslaught in Zedekiah's reign.

Lachish then, provides the first tangible evidence of the two captivities, which are so difficult to separate in the written narrative.

As I have mentioned the seal impression, it will not be out of place to refer to a carnelian gem found this spring, below the north-east corner of the mound, an area that we have just begun to clear, sweeping upwards from the valley to the level of the Hyksos moat. Here, as elsewhere outside the city, the rock is honeycombed with tomb chambers ranging from Byzantine to Middle Bronze Age.

The seal is of the usual plain scaraboid form, beautifully polished and the stone selected is the white and red banded variety of quartz. The underside is divided into three registers with usual narrow double bands, which must, I think, in the case of these Jewish seals represent the ties of thread used for securing the document and which as we know from sealing our own registered packets, always stand up in relief, bisecting our wax seal. In the upper register is the figure of the winged serpent, facing an "ankh " or life sign. The lower registers bear an inscription in Hebrew characters which reads " For Shefaṭyahu Asyahu."

This seal adds two interesting personal names to our collection, compounded with the name of Yhwh, and both occur in the Old Testament or on seals ; by the type and character of the letters, we should date it to about 600 B.C. It should be noted with interest that the pagan emblems are used here by a man bearing an orthodox name, and if we are to take the second name as the name of the father, heathen sympathies persist even through two generations who appear to be orthodox followers of Yhwh.

This seal has a special value for the study of Hebrew palæography, as in the name Shefaṭyahu we see a perfect " teth," the first example of the lapidary's style.

That Lachish was traditionally a stronghold of heathen practices is attested by more than one reference in the Bible.

Owing to its reputation, it figures as the site of an important historical event—the political murder of Amaziah.

" Now after the time that Amaziah did turn away from following the Lord, they made a conspiracy against him in Jerusalem : and he fled to Lachish, but they sent to Lachish after him and slew him there." (2 Chron. xxv, 27, and 2 Kings xiv, 19.)

In tomb groups, seventh to sixth century B.C., amulets of Egyptian deities are commonly found, showing the confidence that the masses had in the household Gods of Egypt, Bes, Ptah-Soker, Isis with Horus, Bast and the thoughtful ape, as popular then as he is to-day throughout the world.

They show the preponderance of Egyptian thought, but the northern and indigenous manifestation of the Mother Goddess was also very popular, and grew in importance when Egyptian contacts waned at the end of the Judæan kingdom. The pottery figurines of the Queen of Heaven with the doves, are always of local manufacture.

" Seest thou not what they do in the cities of Judah, and in the streets of Jerusalem ? The children gather wood and the fathers kindle the fire, and the women knead their dough to make cakes to the Queen of Heaven, and to pour out drink offerings to other gods, that they may provoke me to anger." (Jer. vii, 18.)

So far we have seen no signs of a temple or shrine in the upper levels which we have been examining this year, and the only building for public worship, exposed so far, is the late Bronze Age temple built in the abandoned Hyksos moat, below the north-west corner, where so many ritual vessels were found, lying in front of the altar, on either side of which stood the tall libation stand and the large bin for the meat offerings. This great pottery vessel has now been restored by the Museum in Jerusalem, and stands just over three feet.

It is to this last lay-out of the temple that the Duweir Ewer belongs, which has now been partially reconstructed, fragments of the decorated rim have been built up into position, and we still hope to find further fragments and enough of the handle to enable the form to be restored. There were altogether three levels of this ruin, and a characteristic feature of the middle level, which we date to the reign of Amenhetep III, 1420–1335 B.C. was the prevalence of the chalice or goblet, usually decorated in red or red and black. These specimens have recently been put on show in the newly arranged Bronze Age gallery in the Palestine Museum. For these last three slides I am indebted to the Department of Antiquities.

I have again to acknowledge the great debt of gratitude the Expedition owes to the support of the Trustees of the late Sir Henry Wellcome and to Sir Charles Marston and to Sir Robert Mond, for making it possible to continue both our archæological work at Lachish and our geological research at Bethlehem.

VOTE OF THANKS

MR. J. W. CROWFOOT felt sure all present would agree that they had been very fortunate in being able to listen to two such addresses as those from Sir Robert Mond and Mr. Starkey. The Palestine Exploration Fund had had many Chairmen at its annual meetings, but Mr. Crowfoot doubted whether there had ever been one who had taken such a practical part in so many excavations as had Sir Robert Mond. He had spent a great portion of his life not only in financing, but in following on the spot the work of the Egypt Exploration Society in Egypt. Sir Robert had stressed the slowness with which the work done by the Fund must necessarily be carried out if scientific results were to be attained. Members would have gathered the same lesson from what Mr. Starkey had said. His fifth season at Lachish had not been so sensational in its results as some of those which had preceded it, especially the season in which the ostraca were found, but it did give valuable chronological evidence without which, of course, the full fruit of the earlier work would have been lost. Another evidence of the slowness of work and the uncertainty of the reward in any particular season was seen in Palestine in the wonderful finds made at Megiddo. There work had been going on on a very large scale for probably fifteen years, but very little had been found ; then suddenly, some of the most wonderful things were discovered—gold ornaments and masses of ivory. It was with great pleasure that he proposed a most hearty vote of thanks to the Chairman and the lecturer for their interesting contributions.

MR. HYAMSON seconded the proposition, and the vote of thanks having been accorded amid hearty acclamation, the proceedings terminated.

THE PALESTINO-SINAITIC INSCRIPTIONS

By S. Yeivin

I.

A Palestinian Letter to the Dead?
(*A New Lachish Ostracon*)

It is only natural that in the great excitement over the very remarkable Lachish letters of the last days of the Judæan kingdom, the more modest find of a broken bowl with a fragmentary inscription in the now well authenticated Palestino-Sinaitic script raised less comment than was to be expected.[1]

This broken bowl was found in a tomb dating to the LB II period[2] on the S.W. slope of the natural hillock, on which the city was built, immediately to the S.W. of the town. The bowl, with a flat disc-base, is typical of this period (LB), and bears a legend in white paint (?) or (hardly) chalk (?) in the now famous Palestinian variety of the Proto-Sinaitic script.

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[1] As far as the author knows, the only published notices concerned with this inscription are, apart from a short mention in Starkey's report Q.S. '35, p. 202, two letters to the Editor of *The Times*; the first written by Professor Langdon (*The Times* of 5th October, 1935) puts forward such a wildly improbable theory of decipherment, that it is outside the pale of scientific discussion; the second an answer by Professor Driver (*The Times* of 10th October, 1935) is not available here.

After the completion of the first draft of this article (6.2.36), a notice on the excavations of Telḷ-d-Duweir appeared in *Syria* XVI-4 (December, 1935), pp. 418 toll., to which *R*(*ené*) *D*(*ussaud*) appends (note 1 on p. 419) a suggested reading of this ostracon. He follows H. Bauer, who wrote to him under the date of 27th August, 1935, that he reads the first word בישלישת; he also rightly recognizes certain other facts (see below), but his interpretation is impossible. No Semitist would for a moment even consider such a construction as בשלשת ים.ירח .. to be translated "au troisième jour du mois . . ."

See also Albright, BASOR No. 60, p. 5, note 5, who mentions the suggested reading of the first word בשלשת. This reading was put forward by both Dr. H. L. Ginsberg and the author on the occasion of their visit to Tell^{i}-d-Duweir on 15.2.35 (see note 6 below). Starkey, however, in a written communication dated 19th March, 1936, informs the author that this reading was suggested by Mr. L. G. Harding "the day after the discovery of the bowl, who at the same time suggested the last letter was ח, and the sixth either י or כּ."

It is the author's opinion that the inscription contains two complete words and the beginning (more exactly the first two letters) of a third ; a break in the bowl had destroyed the rest of the inscription. In the lower left-hand corner of Fig. 1 are to be seen faint traces of signs (?) in the same white paint (?). Is it possible that the legend wound spirally round the body of the bowl ending in these faint traces ? A new examination of the bowl may reveal some more signs.[3]

However, as matters stand at present, one can deal only with those signs visible now between the beginning of the inscription and the break in the bowl. These include several new signs. The first does not present any difficulty. It is, no doubt, a ב (*b* ; *cf*. the South-Arabian ⊓), so that the first word is to be read בשלשת (*bšlšt*), good Semitic, which by the way gives also the direction of the new inscription : from r. to l.[4] This word is followed by a word-divider (a thick and short vertical stroke). The next sign is new. All transcribers and decipherers, who have dealt with the ostracon so far, have assumed that this and the third sign following it are similar, that the next sign following it is more or less like a *š*, and that the second sign after it consists of a horizontal " wiggle " starting at the bottom of the so-called *š* and extending below the supposedly equal third sign.[5] Practically everybody agreed that the last sign was a ח (*ḥ*), but the one before it was misdeciphered by the finders as a longish vertical stroke slightly biforked at its lower end. It seems that this sketch led astray intending interpreters (see Fig. 3).

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[2] See Q.S. '35, p. 202 (date of the bowl). In the above mentioned communication Starkey says, that the tomb contained " in addition to the bowl ten other forms of pottery . . . , all well known to archæologists as dating to the LB II period."

[3] My attention was first drawn to these faint marks by Dr. M. Stekelis, when I showed him the photograph of the bowl ; but Starkey writes in the above mentioned letter : " The break in the bowl has not destroyed any of the legend ; it ends with the letter ת ; the traces of white seen are remains of the lime used in repairing the crack." The author still holds the opinion that the inscription continued on the part now missing. As to the traces of paint (?) Harding reiterated orally with all assurance (on our visit to Tellʿ-d-Duweir, on 12th April, 1935) the statement made in Starkey's letter.

[4] Properly speaking this inscription was written from top to bottom ; *i.e.* the writer was holding the bowl sideways (base to his l., rim to his r.) and writing downwards. This, by the way, was the original procedure in scripts all over the world : Egyptian hieroglyphic (all O. K. papyri and in some cases later), all early cuneiform documents, Chinese hieroglyphs, the majority of Proto-Sinaitic inscriptions (see J. Leibovitch, *Les inscriptions protosinaïtiques*, pp. 65 foll.). This fact has been amply proved by the late Professor K. H. Sethe in his course " *Vom Bild zum Buchstaben* " read at the Berlin University in the winter semester 1928–9 (so far unpublished, as far as I know). A careful examination of our inscription shows that the signs were traced from

The author had the opportunity to examine the original bowl, quite closely, soon after its discovery.[6] Then already he formed the opinion that the first and fourth letters of the second word were not similar, and that the second and the third signs were to be quite differently reconstructed. A close examination of the photographic prints kindly supplied by Mr. Starkey confirmed the first impression. It seems to the author that the r. part of the " wiggle " (third letter of the second word) is to be connected with the remains of the second letter, above it, which will thus no longer resemble a *š*, as in the sketch drawn by the finders, but a מ (*m*). A similar *m* is to be found on the reverse of the Beth Shemesh ostracon (second letter from the r. in the first line, not counting the dots above it).[7] Part of the long tail of the " wiggle " is to

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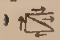
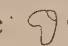
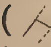
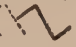
top to bottom and from r. to l.; thus, e.g., the first character was written  ; the third

It is just barely possible, that the inscription on the Duweir Ewer (see *JPOS* XV, pp. 98 foll.), too, was written the same way; though in that case one will have to assume that it has been written backwards (from the end towards the beginning ?).

[5] This theory of deciphering was embodied by the finders in the sketch (see Fig. 3), with a photograph of which together with photographs of the bowl itself Mr. Starkey very kindly supplied me. For this favour I wish to express my sincerest thanks. To this statement Starkey remarks in his above mentioned letter: " The sketch does not transliterate anything; it is merely a picture of what is there." However, the author seems to see there in some cases different traces.

[6] On a visit paid to the excavations, together with Drs. Ginsberg and Maisler on 15th and 16th February, 1935, on Mr. Starkey's kind invitation.

[7] See E. GRANT, *Ain-Shems Excavations* I, pl. X and *BJPES* II 3–4, pp. 7–9. For amended readings see below, pp. 6 foll. and Fig. 7.

be connected with the slanting stroke above it, thus forming an acute angle, which cannot fail to remind us of a ג (*g*). The top eye of the fourth sign together with its curved tail (the last part of the "wiggle") suggest two possibilities, either פ (*p*; *cf.* the Hebræo-Phœnician), or ר (*r*; a cursive form of the Proto-Sinaitic ). Since a Semitic root מגפ (*mgf*) is unknown, whereas מגר (*mgr*) is a perfectly reasonable Semitic triliteral, the latter alternative is preferable.[8] There remains yet the first letter of the second word. Judging by its shape it can only be either י (*y*) or ו (*w*). Since a verb is expected, preference is to be given to *y*, to which interpretation the sign, too, lends itself more readily both as to form (a hand seen in profile with the thumb opposed to the four fingers) as well as to palæographic relations (with the later of the Hebræo-Phœnician alphabet). After the fourth sign there are traces of a word-divider. Thus the second word, composed of four letters, is to be read ימגר (*ymgr*). Of the third word we have only the first two letters. The second is undoubtedly a ח (*ḥ*)[9], the first may be an imperfect צ (; *z*) or צ (; *ṣ*). These may possibly represent the beginning of a n. pr. per.

The whole inscription is to be read :..."בַּשְׁלֹשֶׁת יְמַגֵּר צ[or צ]ח" "A third time may NN overthrow......" or "A third time may (he) overthrow NN......," which sounds a little incongruous on a bowl found in a tomb, until we realize the full intent and purpose of the bowl and the inscription it bears.

The inscription becomes intelligible assuming it to be a Palestinian parallel to the well-known Egyptian "Letters to the Dead."[10] Could not some challenger be desirous of ensuring his success by means of a timely intercession with a deity on the part of some deceased relative ?[11] "May NN overthrow for a third time [his rival XX—or something similar]" would make quite good sense under the circumstances.

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[8] Harding assures me, in an oral communication, that this letter is open on top, and what I took to be the closing of the loop is really limestone grit in the fabric of the bowl. It is still possible that the closing of the loop was badly defaced in the course of time, for the horizontal strokes of the sign do not resemble the bold endings of the first sign of this second word; see below.

[9] *Cf.* the Beth-Shemesh ostracon, first letter of the second line of the reverse. For literature, see Note 7.

[10] *Cf.* A. H. GARDINER, *Egyptian Letters to the Dead.*

II.

The Chronology of the Palestino-Sinaitic Ostraca

With this ostracon (Lachish—II, to distinguish it from Lachish—I, the inscription on the ewer found during season 1933–4) the number of published ostraca in the pre- or proto-Israelite script of the country rises to five, namely : the Tellⁱ-l-Ḥesi ostracon, the Gezer ostracon, the Beth-Shemesh ostracon, Lachish—I, and Lachish—II.

Apart from these five published documents, one more in this script was recently uncovered at Shechem[12], which find extends the territory of the script considerably, both northwards and eastwards. All previous documents came from a comparatively small district in the central part of the coastal plain included in an approximate trapeze, the bases of which are almost parallel lines running from Gezer to Tellⁱ-l-Ḥesi on the west and from Beth-Shemesh to Lachish on the east.

The majority of the documents have either been found *in-sitû* in archæological contexts, which enable us to assign them almost definite dates, or else bear intrinsic dating evidence. The only questionable fragment from the point of view of dating is the Beth-Shemesh ostracon (see below). The new Shechem fragment (stone) is reported to have been found in a house of the MB period, which contained among other things a juglet of the Tellⁱ-l-Yahûdiyyeh type of ware.[12] The

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[11] Such a challenge-duel is very realistically described in the story of Sinuhe ; the challenge and the duel, by the way, take place, if not in Palestine proper, at any rate on its borders in the land of בני־הדם. *Cf.* e.g., my Hebrew translation מגלת שׂאנחת, מגלות פ״צ, עע״ 18 – 20

[12] See Alt, *PJB* '35, p. 6. Though described there as "Hieroglypheninschrift," the inscription in question is a very archaic form of the Palestino-Sinaitic script.

No further discussion of the document is possible before its publication by the finders, which—it is to be hoped—will take place in the nearest future.

Shechem fragment may, therefore, be provisionally assigned to the eighteenth-seventeenth centuries B.C.[13]

Another fragment found in a stratified archæological context is the Tell -l-Ḥesi ostracon. According to its finder: "Near the top of City IV was found the fragment of a plate, No. 194, with the three Phoenician letters. The furred edges of the incisions show that the letters were made before baking. Professor Sayce reads them בּלע, 'swallow,' an appropriate legend for a dish. The form of the בּ is peculiar. Near by was found a stamped jar-handle inscribed in hieroglyph, 'The Palace of Ra-aa-Kheperu,' viz., Amenhotep II."[14] Overlooking the plate stamped with the name of Amenhotep II (1447–1422 B.C.), which may be a survival of earlier times, the whole context of the stratum is so obviously LB II, that a fragment coming even from the top of this stratum cannot be later than the thirteenth century B.C.[15] However, on comparison with the two Lachish ostraca (definitely dated to the thirteenth century B.C.) this fragment cannot be later than the fourteenth century B.C.

Of the two Lachish ostraca, the ewer and the bowl, the former was found in the débris originally thrown out of the small Egyptian temple outside the precincts of the city, to

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Since this article has been written the author found on his visit to Tellⁱ-d-Duweir on 12th April, 1936, that a third document in the same script was unearthed there in a tomb of the LB period, thus raising the number of documents in this script to *seven*. The author wishes to thank Mr. Starkey for the permission to mention this new find. The latter, by the way, proves that the author's way of reading Lachish-I (r. to l.) was correct. A detailed discussion of all points connected with the new find will be possible as soon as it is published by the finders.

[13] On the date of the Tellⁱ-l-Yahûdiyyeh ware see now ALBRIGHT, *AASOR* XIII, pp. 78–9. Starkey, too, stated in an oral communication to the author that his experience at Tellⁱ-d-Duweir seems to suggest that the Tellⁱ-l-Yahûdiyyeh ware appeared sometime before the Hyksos invasion.

[14] See F. J. BLISS, *A Mound of many Cities*, pp. 88–9 and Fig. 194 on p. 88.

[15] The pottery from this stratum shown *ibid.*, pls. IV–V is very obviously LB II: Cypriote "milk-bowls" with wish-bone-handles, black "bilbils," red burnished juglets with pointed bases and one handle, and other characteristic types. The lamps featured *ibid.*, Fig. 174, as well as the Egyptian scarabs and Syro-Hittite seals also confirm this dating (*Cf.* A. ROWE, *The Four Canaanite Temples of Beth-Shan* I, pls. 34 (1–2) and 36; also G. M. FITZGERALD, *do.* II, pls. XLVII–XLVIII).

the south-west. Since, however, " a fragment of the decorated shoulder of the ewer comes from a collection of shards found on the plastered floor and blackened by the fire in the sanctuary," as Starkey points out " this seems to be good evidence that the vessel could not have been thrown on to the rubbish pit long before the temple destruction and further it was actually in use in the sanctuary."[16] The temple seems to have been destroyed in the second quarter of the thirteenth century B.C.[17] while the shape and decoration of the ewer agree with the later phase of the LB period ; it appears, therefore, that this inscription may be dated to the first half of the thirteenth century B.C.

Lachish—II was found in a tomb (see above, p. 180 and Notes 1 and 2), which contained according to Starkey[18] definite LB II material, while the bowl itself is a shape common enough throughout the whole LB period. However, the shape of some letters seems to suggest a date later than Lachish—I (*cf*., e.g., the מ of the two ostraca). It would not be impossible to assign it a date sometime towards the end of the thirteenth century B.C.

The other two ostraca were found under circumstances, which rendered dating by the archæological context rather doubtful, so that their dates must be mainly fixed intrinsically.

As yet we know but very little of the palæography of this script to make it a decisive criterion ; however, some characteristics are quite obvious.

In the case of the Gezer ostracon, the fact that the characters were incised in the clay before baking make the inscription contemporaneous with the vessel, and this was definitely dated by three different authorities, who—moreover—did not know beforehand of one another's opinion, to the MB period.[19]

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[16] The quotations are from a note of Starkey's, published in the *Proceedings of the London Session of the Congrès international des sciences anthropologiques et ethnologiques*, 1934, with a typewritten copy of which Starkey very kindly supplied me.

[17] See J. L. STARKEY, *Excavations at Tell-el-Duweir*, 1933–4, Q.S. 1934, p. 174.

[18] See Note 2 above.

[19] On the circumstances of finding see TAYLOR, *JPOS* 1930 (X), pp. 16 foll. The dating of the fabric of the shard is fully discussed by ALBRIGHT, *BASOR* No. 58, pp. 28–9. Dr. H. L. Ginsberg, in a written communication of

The only other document dated to the same period (MB) is the Shechem fragment. Since in both cases the dating is supported by the very archaic shape of the letters, which closely resemble their prototypes in the Proto-Sinaitic signary,[20] we may accept the above dating for the Gezer ostracon (pre-sixteenth century B.C.).

There remains yet the Beth-Shemesh ostracon. All authorities that examined it as a specimen of pottery agree that it belongs to the late MB ware,[21] but since it is inscribed in black ink there is no evidence, *ipso facto*, as in the case of the Gezer and Tell^{i}-l-Ḥesi ostraca, that the shard and the inscription are contemporaneous. The author has failed to find in Grant's publications any allusion to data relating to the circumstances under which this ostracon had been found.[22] It is true that Vincent declares : " Je suis en mesure d'ajouter aujourd'hui pour mon compte que le tesson, classé nettement par sa technique au Bronze IIévol ué, fut recueilli dans une couche où n'apparaissait aucun indice caractéristique du Bronze III évolué. . . . "[23] Further on he adds : " . . . fait dûment controllé de la trouvaille du tesson parmi des débris non bouleversés de la phase initiale du Bronze III."[24]

However, Vincent apparently took Grant's assertion for it ;

7th May, of 1936, proposes to read this [ל]כלב ([l] klb). For the shape of the ל *cf*. the ל in the Proto-Sinaitic בעלת, J. LEIBOVITCH, *op*. *cit*., Fig. 30 (inscription No. 352, line 3 from the r.).

[20] See J. LEIBOVITCH, *op*. *cit*., pl. III, following p. 59.

[21] See H. L. VINCENT, *RB* 1932 (XLI), pp. 217 foll., and ALBRIGHT, *BASOR* No. 58, pp. 28 foll.

[22] After a prolonged search, in which he was kindly assisted by Mr. M. Avi-Yonah of the Palestine Department of Antiquities (whom he wishes to thank most sincerely), the author found but two fleeting allusions to the ostracon in E. GRANT, *Ain-Shems Excavations* I : (1) on p. 30 it is stated that the ostracon was found in L(evel) IV. (2) in the register of objects at the end of the volume the following entry alludes to the ostracon : " Y–31–1699 ostracon, Semitic inscription both sides, v. pl. X, W.F.A.A.P., p. 50 (this wild abbreviation probably alludes to W. F. ALBRIGHT, *The Archæology of Palestine and the Bible*)."

On the plans L(evel) IV is stated to be LB.

This meagre information is not sufficient to establish the archæological context, since accompanying objects or general contents of the level at this particular spot (Y–31) are nowhere described.

[23] See VINCENT, *op*. *cit*., p. 218.

[24] IDEM, *ibid*., p. 219.

and as it is quite clear from Grant's diary that not only was he frequently absent from the actual place of excavations, but often no member of the scientific staff supervised digging-operations,[25] it is quite possible that he took the mistaken opinion of the workmen, who found it, as gospel truth. Every archæologist, who knows what fieldwork is like, knows how frequently workmen try to deceive members of the scientific staff for a variety of reasons (fear, greed for *bakhsheesh*, &c.).[26] So that the archæological context in which this ostracon was found is rather doubtful. Our only guide in this matter is, therefore, the palæography of the inscription itself. But first it would be advisable to try and decipher the legend.[27]

Professor H. Grimme has lately published a lengthy article on the subject.[28] In this article he puts forward a highly improbable theory, that the ostracon is to be read boustrophedon-wise and in two parts.[29] He then proceeds to give a full transliteration and translation, which, in the author's opinion, are based on several quite unlikely assumptions.

It was, therefore, desirable to make a fresh examination of the ostracon itself. The Department of Antiquities of the Government of Palestine very kindly allowed the author access to the ostracon, and also supplied the photographs of both its obverse and reverse published here as Figs. 5 and 6.[30]

However, before proceeding it is necessary to make a general statement. In all publications of the ostracon, so far, the obverse had been turned upside down.[31] In our attempts at transliteration of ancient documents we are apt to be too easily and quite unconsciously misled by our present-day methods of writing and reading. The reverse of the Beth-Shemesh ostracon is quite clear; what was more natural, therefore, than to turn the ostracon the way we turn a leaf of a book, and to try and decipher the greatly obliterated obverse as if it was written the same way up? However, a careful examination of the obverse shows that this method is not correct. The obverse is really inscribed in the opposite direction as far as top and bottom are concerned. The ostracon is to be turned like the pages of a modern block-note (without tearing out the leaves). That this *is* so, is proved not only by the shape of the ל (*l*), but by the dot of the ח (*ḥ*), too, which appears on the reverse under the letter and should consequently appear also on the obverse in the same relation to the letter. This evidence is further strengthened by the reading of the last word (on the obverse) לעקׄאחז (see below), for it is absurd to assume that the reverse is to be read from r. to l., while the obverse is to be read in the opposite direction.[32]

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[25] See Grant, *op. cit.* I, pp. 63, 64, 65.

[26] In some cases it is well known that objects were concealed by workmen, who found them, in the mistaken hope of subsequently disposing of them to dealers at extravagant prices. Not obtaining the price they expected on the market the workmen returned the objects, and rediscovered them at totally different places still hoping to receive a *bakhsheesh* better than the price offered by dealers.

[27] I take it that Vincent has given up his conjecture that the inscription is hieratic (*RB* 1932, pp. 217 foll.), and will not deal with this hypothesis here.

[28] H. Grimme, *Die altkanaanäische Buchstabenschrift zwischen* 1500 *und* 1250 *v. Ch.*, *Arch. f. OF* 1935, pp. 267–81.

[29] See especially *ibid.*, pp. 270 foll.

[30] The author wishes to thank the Director of the Department of Antiquities in Palestine, for the kind permission to examine the ostracon and publish the accompanying photographs, and Mr. Shweig of the same Department for the very excellent photographs he took of this ostracon.

We can now attack the transliteration. The bad conservation of the obverse is due to the fact that the surface of the pot had been once covered with a whitish wash, which prevented the ink from penetrating deeply into the fabric. Now that the wash has mostly peeled off, only very faint traces of the writing remain visible. Of the three lines containing letters only the lowest is clear, reading from r. to l.: לעקׄאחז (see Fig. 7). The last letter is doubtful, since only a part of it is preserved, the ostracon being slightly broken along this border (left).[33]

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[31] See VINCENT, *RB* 1930, pp. 401–2 and pl. XV; GRANT, *Ain-Shems Evcavations* I, pl. X; GRIMME, *Arch. f. OF*, p. 271.

[32] The author had already propounded this theory in his first attempt of decipherment published as a preliminary notice in the *BJPES* 1934 (II 3–4), pp. 7–9. Meanwhile the discovery of the Lachish ostraca of the last days of the Judaean kingdom, written the same way, has confirmed this hypothesis; see כנסת 1935, pls. II (letter III, obv.), III–1 (letter III, rev.), IV–1 (letter IV, obv.) and IV–2 (letter IV, rev.) all unnumbered, but following p. 376.

[33] The dark patch in the lower l. hand corner is not a trace of writing but a chip in the ostracon, which is broken along the whole lower half of the l. border.

In the line above it, again from r. to l., one can discern אטה̇?·?זה̇, the last letter being again doubtful for the same reason.

Above this line, there is a line of dots and a " comma "-like sign, which occurs again on the reverse (see below). These dots are placed in the following manner : five dots are arranged in two triangles followed by the " coma " (above the first three letters of the line below, counting from the r.) : ,·.·.· ; two more dots, in a diagonal line, are placed above the last letters :·.

The line above this contains again letters, of which only the last one (on the l.) is clear : נ (*n*). Before it an unknown sign is visible ƅ, preceded by faint remains of two more letters.

At the top of the ostracon one can just make out the very faint traces of two dots followed by a " comma " : ,..

The reverse, which was never covered by a wash, is much clearer ; the top line consists of three dots placed in a straight line, followed by a "comma" ; the second line reads, from r. to l., גמען ; and the third line : חנן, with a dot under the ח (ḥ) on the l.

Under the circumstances it seems that only one interpretation is justified ; namely, that the ostracon contains a list of names with indications of numbers against some of them.

Taking the reverse first, we have two perfectly good Semitic names : (1) גמען, from the root גמע (*gm*ʿ)—to sip, to swallow, built on the paradigm of חֶמְדָּן (Gen. xxxvi. 26), בִּלְהָן (Gen. xxxvi. 27), יִתְרָן (Gen. xxxvi. 26), all of which are of a North-Arabian pattern ; and (2) חנן, *cf*. 1 Chr. xi. 43 ; Esr. ii. 46 ; Neh. vii. 49 and others. Above these two names three dots and a "comma" indicate the numeral *thirteen*, for the " comma " is probably a cursive form of *ten* ; *cf*. the Egyptian ∩ and its hieratic form.[34]

Turning now to the obverse, we perceive there five lines, of which lines 1 and 3 contain numerals, while 2, 4 and 5 are inscribed with letters. In line 2 we have a quadriliteral word ending in *n* ; on the analogy of line 2 of the reverse it would not be a too wild hypothesis to surmise here also a n. pr. per. of the pattern פִּעְלָן (see above), with a numeral above it (in line 1), indicating the number *twelve*. Line 3 contains two groups of numerals; *fifteen* on the r., *two* (or *twelve*, assuming that the missing fragment of the border contained a "comma")—on the l. Line 4, therefore, must contain two names, between which are to be divided its five (?) letters; it is possible, however, that there were originally six letters, for there is room enough for another letter between signs 3 and 4 (counting from r.). The last line, the clearest of all, reads, as already mentioned, לעק?אחז. The third sign (from the r.) is new; comparing it with the known letters of the Hebræo-Phoenician alphabet, two possibilities seem to arise: ו (*w*; T, Y) or ק (*q*; φ). Since a reading לעואחז (*l'w'ḥz*) does not seem to make any sense, the reading ק (*q*) is to be preferred; in which case the word in question would read לעקאחז (*l'q'ḥz*), which may represent a theophorous name[35]; as Dr. H. L. Ginsberg kindly informs me, the *Ugarit* texts make mention of a class of gods called עקקם (*'qqm*);[36] here we may have a mention of a single deity of this type. This sign occurs also in the proto-Sinaitic inscriptions, though it is not listed by Leibovitch[37] as a separate sign.[38] It occurs in inscription No. 1 (345), as the second sign from the l. in line b.[39]

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[34] See G. MÖLLER, *Hieratische Paläographie* II, sign 623, 4th col. of hieratic (date Seti I, end of XIVth century B.C.), lower sign.

The fact that the units precede the sign of the tens need not surprise us, since the Semite counts his units first שְׁלֹשָׁה – עָשָׂר.

To summarize: we seem to have here a list of workmen and the number of days they worked, together with the name of their employer (?; at least that of the first mentioned three workmen):

Obverse.	*Reverse.*
line 1: twelve (days, worked)	line 1: thirteen (days worked).
line 2: *xxxn* (n. pr. per.)	line 2: *gm'n* (*gim'ân*).

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[35] On the pattern of יתואחז (*cf.* 2 Kings 13, 1).

[36] See *Syria* 1935, pl. XLV, col. I, ll. 27 and 37, and p. 249. The author owes both the knowledge of the fact as well as the reference to the courtesy of Dr. H. L. Ginsberg.

[37] See J. LEIBOVITCH, *op. cit.*, pl. III.

[38] This sign is not to be confused with No. 32 of Leibovitch's signary, which is a different sign altogether.

[39] See LEIBOVITCH, *op. cit.*, pp. 63–4. I would propose to transliterate and translate this second line in the following manner: כּ קצת לבעלת (*k qḍt lb'lt*), meaning "for (indeed) justice (or judgment) is Ba'alat's.

line 3 : fifteen (days) two (or twelve days, worked)	line 3 : *ḥnn* (*ḥânân*; or possibly *ḫânân*).

line 4 : ’ṭ (?) *h*(?) *zṁ*.[40]
line 5 : for (ḻ) ‘*q’ḥz* (‘*aq’âḥâz*).

The dot under the ח in each case is rather puzzling. It is hardly to be taken for a diacritical point at this early age.[41] On the other hand it is difficult to assume that in both cases the dot represents the numeral *one*, and is only accidentally placed under the ח, in the one case near the end of the word, in the other—at the very beginning. Of course, there may be yet a third totally different explanation. In any case, the problem remains undecided for the time being.

Returning to the question of dating, the palæography of this inscription prevents us from assigning the sherd a date higher than any of the documents discussed heretofore. The shape of the נ is later than that of Lachish—I; the shape of the ח is later than that of Lachish—II; so is the form of the ג; the ע is round, and though still retaining a dot in the centre in one case (obv., L. 5), it is distinctly later than the oblong ע of the Tellⁱ-l-Ḥesi ostracon, with its sharp corners; while the מ resembles that of Lachish—II, the latest of all the ostraca discussed above.

Taking all these facts into consideration the author feels inclined to assign this ostracon to the beginning of the twelfth century B.C.

The following is, therefore, an approximate chronological table of the pre- or proto-Israelite inscriptions found, so far, in Palestine:

The Shechem fragment (stone) ..	ca. 1650 B.C.
The Gezer ostracon (base of tall censer)	ca. 1600 B.C.

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[40] For the ending *m cf.* אוֹנָם (Gen. 36, 23).

[41] The ח of אחז is of course a ẖ (*cf.* Arabic أَخَذَ On the other hand the ח of חנן is a ḥ (*cf.* Arabic حَنَّ) though both Hebrew and Arabic possess also a second root خَنَّ; it is significant that GB,[17] s. v. חָנָן does not state that this n. pr. is derived from חנן I (حَنَّ), as he does in the case of חננאל, חנניהו, &c.

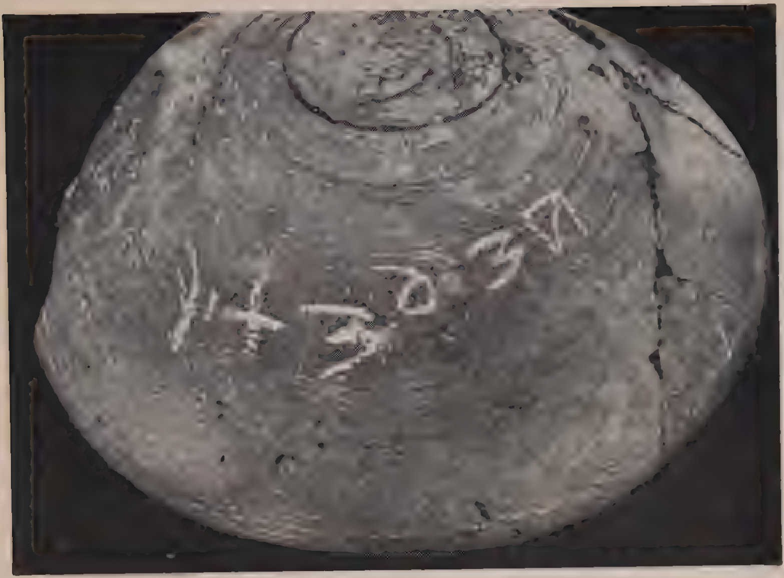

FIG. 1. R. HALF OF THE INSCRIPTION ON THE BOWL (LACHISH—II).

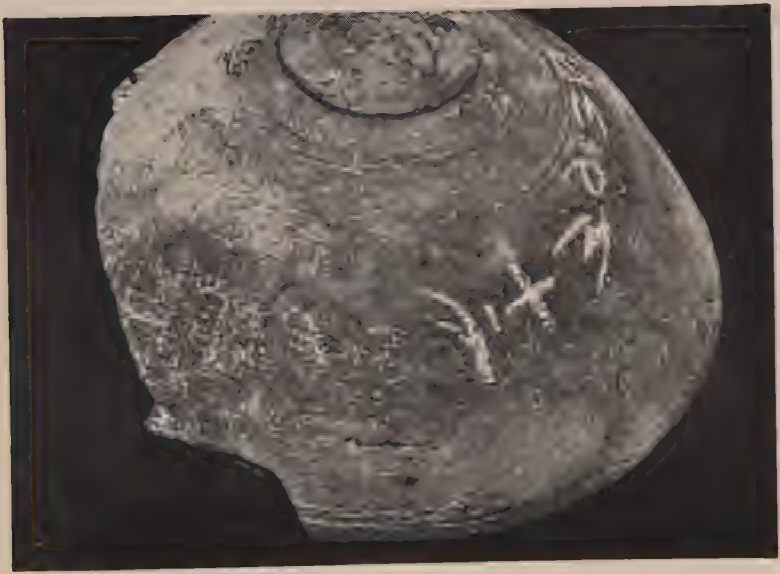

FIG. 2. L. HALF OF THE INSCRIPTION ON THE BOWL (LACHISH—II).

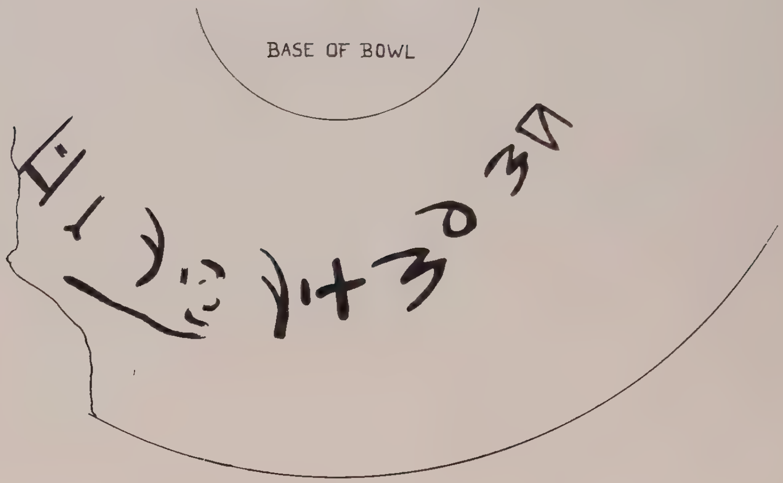

FIG. 3. THE FINDER'S SKETCH (LACHISH—II).

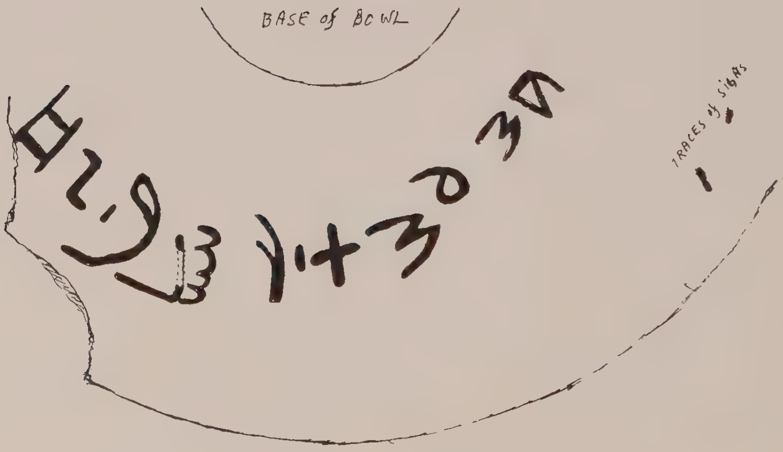

FIG. 4. THE AUTHOR'S DECIPHERMENT (LACHISH—II).

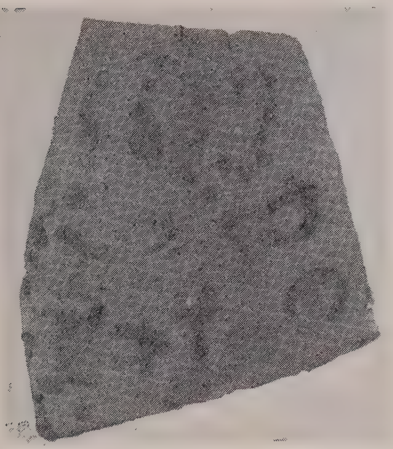

FIG. 5. THE BETH-SHEMESH OSTRACON (OBVERSE).

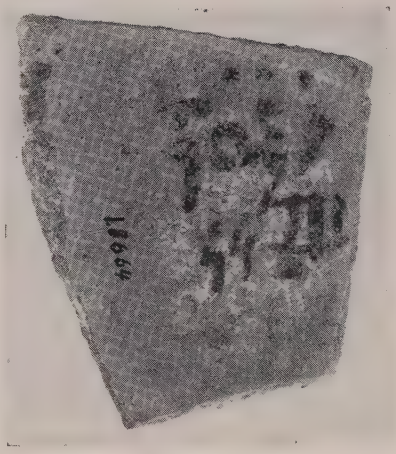

FIG. 6. THE BETH-SHEMESH OSTRACON (REVERSE).

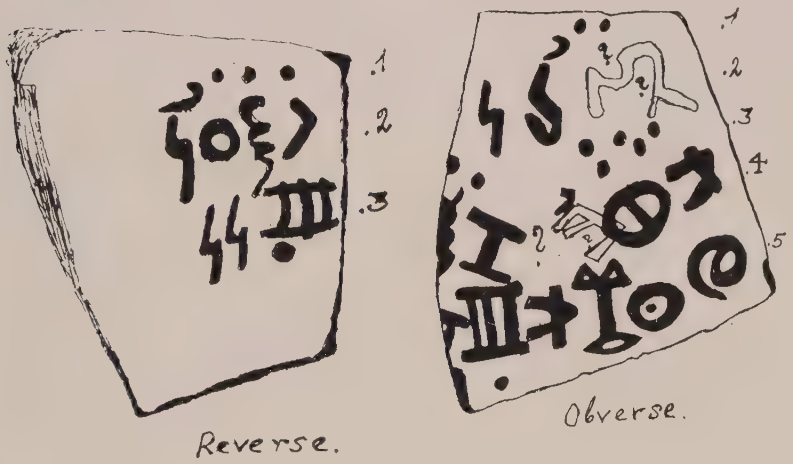

FIG. 7. THE AUTHOR'S DECIPHERMENT (BETH-SHEMESH) (OBVERSE AND REVERSE.)

The Tell^{i}-l-Ḥesi ostracon (bowl)	ca. 1350 B.C.
The Lachish—I ostracon (ewer)	ca. 1275 B.C.[42]
The Lachish—II ostracon (bowl)	ca. 1225 B.C.
The Beth-Shemesh ostracon ..	ca. 1200/1180 B.C.

The value of these documents is not in themselves, for all (with the exception of those from Shechem, and possibly Tell^{i}-l-Ḥesi) are fragmentary, and even the complete ones are very short (one word only), adding little new to our knowledge of either the political or the cultural history of their period. But they are very important as undeniable proofs of the existence of a local system of script, in which documents in the language of the country could be rendered. That this script was extensively used on all occasions is to be gleaned from the documents themselves, for they are of a miscellaneous nature : dedicatory (Shechem, Gezer, Lachish—I), funerary (Lachish—II) and of daily use (Tell^{i}-l-Ḥesi ?, Beth-Shemesh).

We begin to understand now how it happened that Jewish historiographers of the first millennium B.C. could incorporate in their compilations data relating to the third (Ha'ay) and second (the story of the conquest)[43] millennia B.C.

Tell-Aviv.
April 1, 1936.

ADDENDUM

The seventh ostracon (Lachish—III) has meanwhile been published by the finders (*Q.S.*, October, 1936, p. 180, fig. 1); the author hopes to make it a subject of a separate study in the near future.

April 28, 1937.

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[42] Lachish—III seems to belong between Lachish—I and Lachish—II (see above, note 12).

[43] Hence, the great similarity, e.g. of the story of the conquest as told in Joshua (in general outline, not in detail) to the conditions obtaining in Palestine during the so-called Tell^{i}-l-'Amârna period ; see my article in צין IV, pp. 7 following.

HITTITE *PARAS* = HORSE ? ?

By O. R. Gurney.

In case other Hebraists besides Mr. Gaster[1] have been misled by Sayce's Hittite derivation of the Hebrew פָּרָשׁ,[2] I think the facts about the word *paras* and similar words in the Hittite texts should be clearly stated.

The word itself occurs only once, in the phrase *pa-ra-aš tar-ra-aš-ši-iš* DLAMA-*i* (*K.U.B.* II 1 III 18), and it is preceded by the two slanting wedges which indicate a non-Hittite, probably Luwian form. This phrase and the *kur-ra-aš tar-ra-aš-ši-iš* DLAMA-*i* in line 16 form an obvious pair, in a list of 112 names of the Protective Genius DLAMA ;[3] the two cannot possibly be " equivalent," and even if there were any reason (which, however, there is not) to supply the sign ANŠU at the beginning of line 16 and read ⟨ANŠU.⟩ KUR. RA-*aš*, etc. (so Sayce *loc. cit.*), that would be sufficient proof that *paras* does not mean " horse "! The form of the words as well as the " Glossenkeil " would suggest that they are Luwian, and as the context supplies no indication of their meaning no interpretation of them is at present possible. The fact that a " Genius of the horses " (^{D}LAMA ANŠU.KUR.RA.MEŠ) occurs earlier in the list (II 13) is not in favour of Sayce's idea.

The word *pár-aš-du-us*, which Sayce translates " horse-droves," should be pronounced *parstus*, and has no bearing on the question, as it must from the context mean " new shoots " or the like.[4]

It is curious that Sayce did not mention the phrase ERÍN. MEŠ *pa-ra-ša-an-za* (*K.U.B.* XIV 19:11), which at first glance reminds one of the frequent ERÍN.MEŠ ANŠU.KUR.RA.MEŠ " infantry and chariotry". But this word must be connected with *pa-ra-a-še-eš-ši-ir* (var. *pa-rà-še-eš-še-ir*), for which Sayce refers to Tenner, *Ein hethitischer Annalentext*, p. 20, but which Götze has more recently explained as a secondary formation from the verb *parā̄-* probably meaning " to scatter".[5]

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[1] *P.E.Q.* 1937.1, p. 47 n.1.

[2] In *J.R.A.S.* 1930, p. 312.

[3] For the problem of the name of the Hittite deity written with this ideogram see Forrer, *Forschungen* I, p. 10, n.2, (for " Inaras ") ; Sommer, *Aḫḫijavā-urkunden*, p. 20 ff. and Ehelolf, *O.L.Z.* 1934, 721.

[4] So Götze, *Kleinasien* (*Kulturgeschichte des Alten Orients* III 1), p. 135.

The Hittite word for horse is not yet known; but if ANŠU.KUR.RA-*uš* in Forrer, 2*Bo.T.U.* 12A II 36, is (as it appears to be) nom. sing., then it was a *u*-stem, a conclusion which would seem to bear out Hrozný's comment on the first line of the treatise on horse-training: " On pourrait se demander si la première partie du titre *amēl aššuššanni* de Kikkuliš ne contient pas de même le mot indien *áçvas* pour le cheval."[6] However, it must not be forgotten that *aššuššanni* is a Mitannian word and cannot therefore be used as evidence for the Hittite.

As Professor Langdon points out, there is in fact no need to treat Hebrew *pārāš* " horse " as a loan-word, since the Arabic and Ethiopic cognates both form regular derivatives; Arabic *farus* " to understand the art of riding ", *faras* " horse, stud", Ethiopic *faras* " horse", *'afrāsī* "equestrian "; Hebrew *parraš* " rider "; and *cf*. Accadian *rakkabu* " charioteer " from *rakābu* " to mount a horse or chariot ".

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[5] In *M.V.A.G.* 38 (1933), p. 254 f.

[6] *Archiv Orientálny* III, p. 432, n.1.

THE SYNAGOGUE AND THE DIASPORA

By Helen Rosenau

Before the synagogue came into existence the Jewish worship was held in the Temple. But some arrangement to take the place of Temple worship must already have been made during the Babylonian exile. In the time of Ezra readings of the law were held in the open air. In the diaspora, the dispersion, as well as in Palestinian places outside Jerusalem, the need was felt to worship at the time of the Temple sacrifices. The " maamadot " delegations took the place of the whole population. For this population a permanent place of worship had to be provided in their own districts. In Jerusalem there was a hall, connected with the Temple, in which the priests prayed. The study of the Old Testament by the congregation, taking a prominent part in Jewish learning and religion, made a meeting place essential. All these different tendencies were combined and resulted gradually in a new type of worship without sacrifice, and a new type of religious building, the synagogue. In the synagogue service was held in the interior, this interior not being the house of a god, to which only priests had access, but a place of worship for the whole congregation or community.[1]

In the synagogue of Capernaum, which belongs to the earliest group so far known, the base of the colonnade supporting the gallery can be seen. These galleries were made for women as can be deduced from the arrangement in the outer forecourt of the Temple where galleries for women had already been built in order to avoid distraction by the proximity of the sexes. This statement conforms well with the description of the destruction of the synagogue in Alexandria by the Emperor Trajan. It is related that after having slaughtered all the men Trajan promised to spare the women. The women answered : " Do to those above what you have done to those below." This seems to indicate, as Dr. H. L. Ginsberg assumes, that the women were sitting in galleries.[1a] The tradition of separating men and women is to be traced back to Zechariah (Chap. 12 : " and the land shall mourn, every family apart, the family of the house of David apart, and their wives apart," v. 12-14) and is found later on in the disposition of the women's court in the Temple.

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[1] This study is part of a larger one, in preparation, where full references will be given. The standard work on the ancient synagogue is still : H. Kohl, C. Watzinger : *Antike Synagogen in Galiläa*, Leipzig 1916.

A capital of the synagogue of Capernaum shows the importance and the limits of Hellenistic influence : the style of the acanthus leaves is closely related to Baalbek, and the introduction of a Jewish symbol—the lampstand with seven branches—indicates the future development towards the representation of religious objects. The same style is found in the group related to Capernaum. (Pl. VI, Figs. 1, 2.)

The beginning of an artistic tradition of worship in an interior, not in the open space of a court, is represented in the Basilica of the Porta Maggiore in Rome. It was the place of worship of the Pythagorean sect. This sect was of great importance in the first century of the Christian Era : the altar stands in the west opposite the eastern apse and is a reminder of the general tradition which placed the main altar in the outer court standing before the temple. An influence of this tradition can even be seen in the Carolingian " Westwerke " like Centula where the main altar stands on a gallery over the entrance in the west.

It is characteristic of synagogue worship that it takes place inside the building as was typical of the ancient mystery cults and also of the Christian church. The chief difference between the mystery cults on the one hand, and synagogue and church on the other being that the mystery cults were only meant for a small number of adherents, whereas Jewish and Christian worship was open to the whole community. It is in keeping with Temple tradition that a forecourt was a frequent architectural feature of the synagogue.

The first synagogue of Dura was a basilica having no protruding apse and no special part for women. The plan is developed on width not on length as was generally the habit

[1a] Cp. E. L. Sukenik : *Ancient synagogues in Palestine and Greece*, London 1934, p. 48, note 1.

in later periods and remains in general usage to the present day. The second synagogue of Dura (A.D. 245) is built on the earlier plan and is worth noting for its relation to the Temple idea, possessing as it does a niche as the receptacle of the Scrolls, and having its orientation like the Temple to the west.[2] Dura is well known on account of its cycle of paintings, but deserves to be equally famous for its architecture which is similar to Hammam-Lif where the synagogue conforming to the same pattern is also orientated towards the west.[2a]

The painting above the niche in Dura shows the Temple in a form related to the Bar Kochba coins, a huge representation of the seven branched lampstand and the sacrifice of Isaac. (Cp. PAL. EXPL. FUND QUART. STAT. 1936, pl. IV, fig. 2.) The latter reminds us that sacrifice is connected with Temple worship. This is opposed to synagogue worship where prayers take the place of sacrifice. Isaac, who was not sacrificed, is therefore a suitable allegory for the synagogue. In the book of Jubilees, which is pre-Christian, the sacrifice of Isaac is said to have taken place on the day of the Passover, and to be a type of the Paschal Lamb.[3]

The differentiation between Jewish and Christian art is manifest in the paintings of the Church in Dura. Traces of the Good Shepherd can be seen surrounded by his sheep. Whereas Jewish art is representative, emblematic, symbolic and historical, Christian art from its very beginning emphasizes more the allegorical aspects. So, for instance, the Good Shepherd, a pagan pattern, stands for Christ.

The sacrifice of Isaac was a popular subject of Jewish painting. In Beth Alpha it shows in a primitive style the altar, the ram, Abraham's two servants and the palm trees. It is significant of the representative character of this picture that the hand of God has a central position. Even when the Jews adopted pictorial representation of animated beings they never went so far as to represent God, differing in this respect from the Christians. The various figures are named in writing, thereby denoting the close relation between figuring and writing. This attitude was general in the art of the pre-Greek periods and was recovered in the Middle Ages. (Pl. VI, Fig. 3.)

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[2] This feature has not been appreciated in *The Art Bulletin*, XVIII, 1936, p. 541 ff.

[2a] *Revue Biblique*, specially 45, 1936, p. 72 ff; *Journal of the Palestine Oriental Society*, XVI, 1936, p. 33 ff. The orientation of prayer in Hammam-Life was probably towards Jerusalem, conforming to the direction of the inscription and Talmud tradition. In any case it possessed a double orientation, namely towards the niche and towards the doors, e.g. as in the Temple and towards Jerusalem. Cf. note.

[3] J. Parkes: *The Conflict of the Church and the Synagogue*, London 1934, p. 116.

The well-known church of San Apollinare Nuovo in Ravenna is typical of early Italian Christian art under Byzantine influence. It belongs to the sixth century, the same period as Beth Alpha,[4] which is dated by an inscription, mentioning the Emperor Justin. The row of figures above the arcades is well known for its hieratic and refined style. It shows the prominent part the human figure plays in Christian art. It can be used as representative of individuals and at the same time as representative of ideas. This attitude is clear in the representation of saints who belong both to the human and celestial world. Whereas Christian art is mainly characterized by its allegorical aspects, namely by the animation and representation of abstract ideas giving to the abstract an anthropomorphic form, Jewish art is chiefly representative of symbols, namely expressing significance by means of signs. This must be understood as a general statement, as in Christian art symbols are found, for instance the Cross, and in Jewish art abstract ideas are sometimes animated as, for instance, when Daniel is represented in the lions' den thereby expressing the idea of salvation. But these are exceptions, not the most characteristic features.

The form of the synagogue in the Middle Ages is entirely different from those previously seen, except in Spain. (Pl. I, Fig. 4.) A hall with double naves and small windows is adopted, not unlike the refectory type of Christian monasteries. The central columns interfere architecturally with the orientation of the building. The architects who built the synagogues in antiquity were most likely Jews, as no political restriction hampered their artistic development. In the Middle Ages when the Jews were not allowed to enter guilds or cathedral workshops the architects of synagogues were Christians. Therefore the details of the synagogue in Worms, as in other places, were similar to those of the cathedral.[5]

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[4] Cp. Sukenik, *op. cit.*, p. 31. The same : *The Ancient Synagogue of Beth Alpha*, Jerusalem and London 1932, p. 50 ff. leaves the choice between the two Emperors Justin open. The style of the mosaics is, however, so advanced, from a primitive point of view, that the second Emperor of this name is more likely to be mentioned. (565–578.)

The synagogue in Prague belongs to this type, which as the early-Gothic character of its ornaments implies must belong to the thirteenth century.[6] From it the synagogue in Cracow is derived. (Pl. VII, Fig. 1.)

The miniature of the synagogue in the Haggadah of Serajewo shows the same thickness of the walls and the smallness of the windows. In the fortress-like types of synagogue, as found in Lincoln and in France, the room for prayer is in the protected upper floor, which was easier to defend than the ground floor.[7] In Lincoln the niche for the scrolls is still extant. (Pl. VIII.) The influence of persecutions and their effect on architecture are clearly notable in Central-Europe, whereas in Spain different conditions prevailed, and the synagogues there are therefore still in the antique type, with galleries and niches, their decoration influenced by the mozarabic environments,[8] in the same way as in Antiquity, they were influenced by Hellenistic art.

A baroque type of synagogue in Poland belonging to Lublin (seventeenth century)[9] shows how the vaulting is centred over the pulpit, the " bema." (Pl. VII, Fig. 2.) The tradition for this arrangement can be traced back to the great synagogue, the "diplostoon " in Alexandria, which possessed a "stoa in a stoa." This from the nomenclature of Vitruvius is a building with

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[5] R. Krautheimer : *Mittelalterliche Synagogen*, Berlin 1927, *passim* is—although one-sided regarding the " secular elements " of the synagogue, and not free of mistakes in detail—the standard work on medieval synagogues, mainly in Germany, omitting, however, England and France.

[6] Cp. Z. Muenzer : *Die Altneusynagoge in Prag*, Prag 1932, p. 32 ff.

[7] Cp. the present writer's article in *Archæological Journal*, XCIII, 1937, p. 51 ff.

[8] *Revue des Etudes Juives*, 84, 1927, p. 15 ff. ; E. Lambert ; *Tolède*, Paris 1925.

[9] A good survey of synagogues and Jewish works of art in general is given by M. Lowenthal : *A world passed by*, New York and London 1933, where many references will be found concerning baroque synagogues.

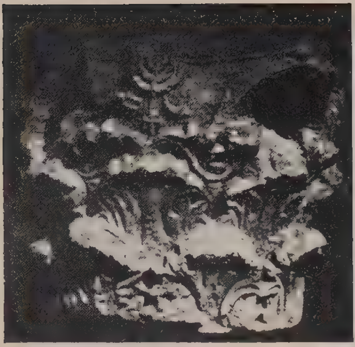


FIG. 1. CAPITAL IN CAPERNAUM
(FROM ORFALI)

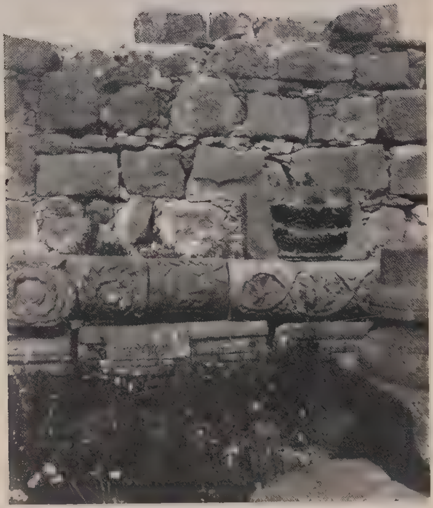


FIG 2. DETAILS IN CHORA IN

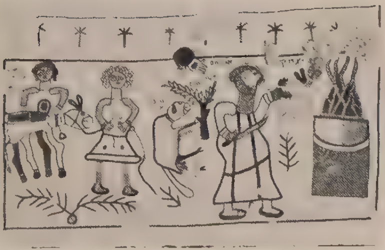


FIG. 3. MOSAIC IN BETH ALPHA
(FROM SUKENIK)

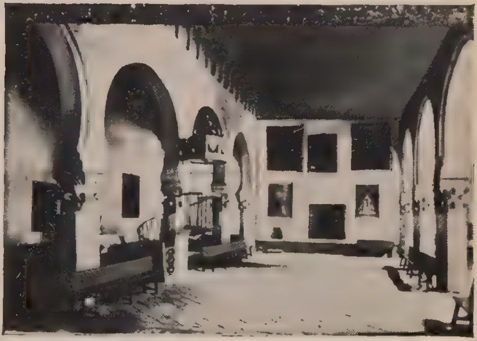


FIG. 4. SYNAGOGUE IN SEGOVIA
(THROUGH THE COURTESY OF DR. A. S. YAHUDA)

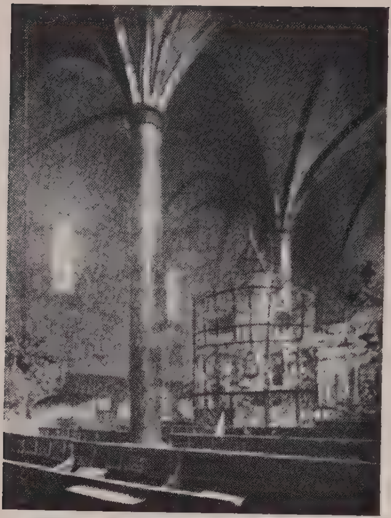


FIG. I. SYNAGOGUE IN CRACOW

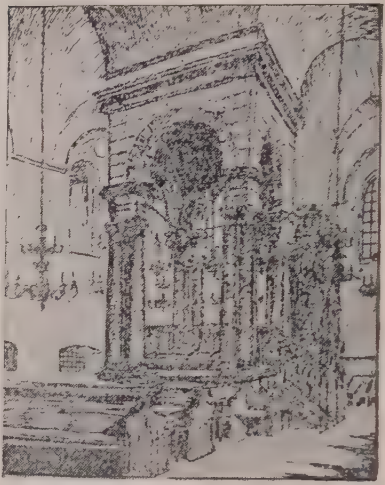


FIG. 2. SYNAGOGUE IN LUBLIN (FROM LOWENTHAL)

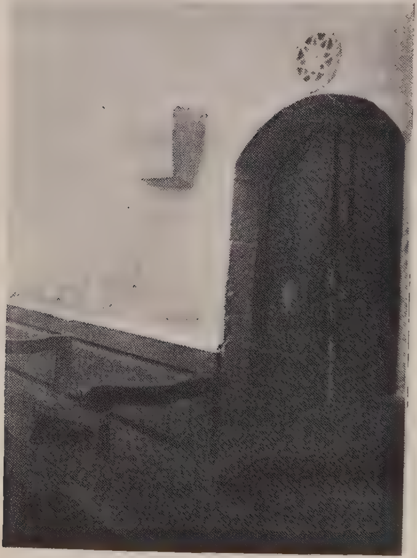


FIG. 3

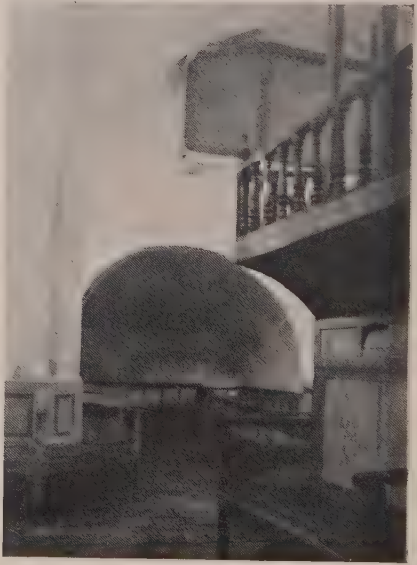
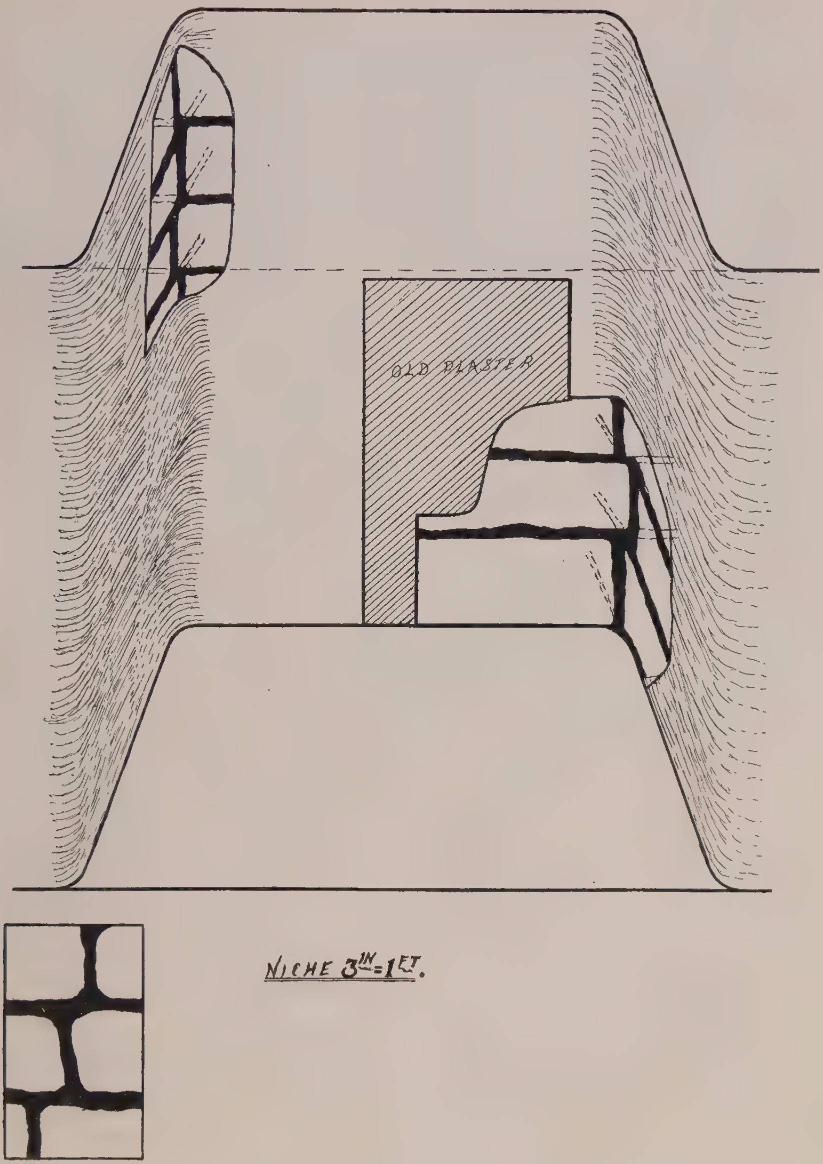
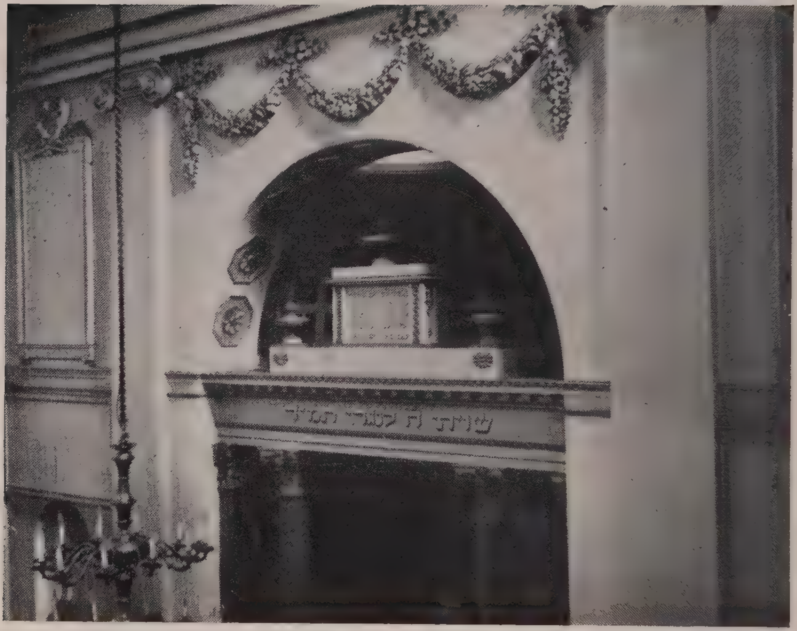


FIG. 4

ELIAH SYNAGOGUE IN JERUSALEM



NICHE IN LINCOLN, "JEWS' COURT"



GREAT SYNAGOGUE, LONDON

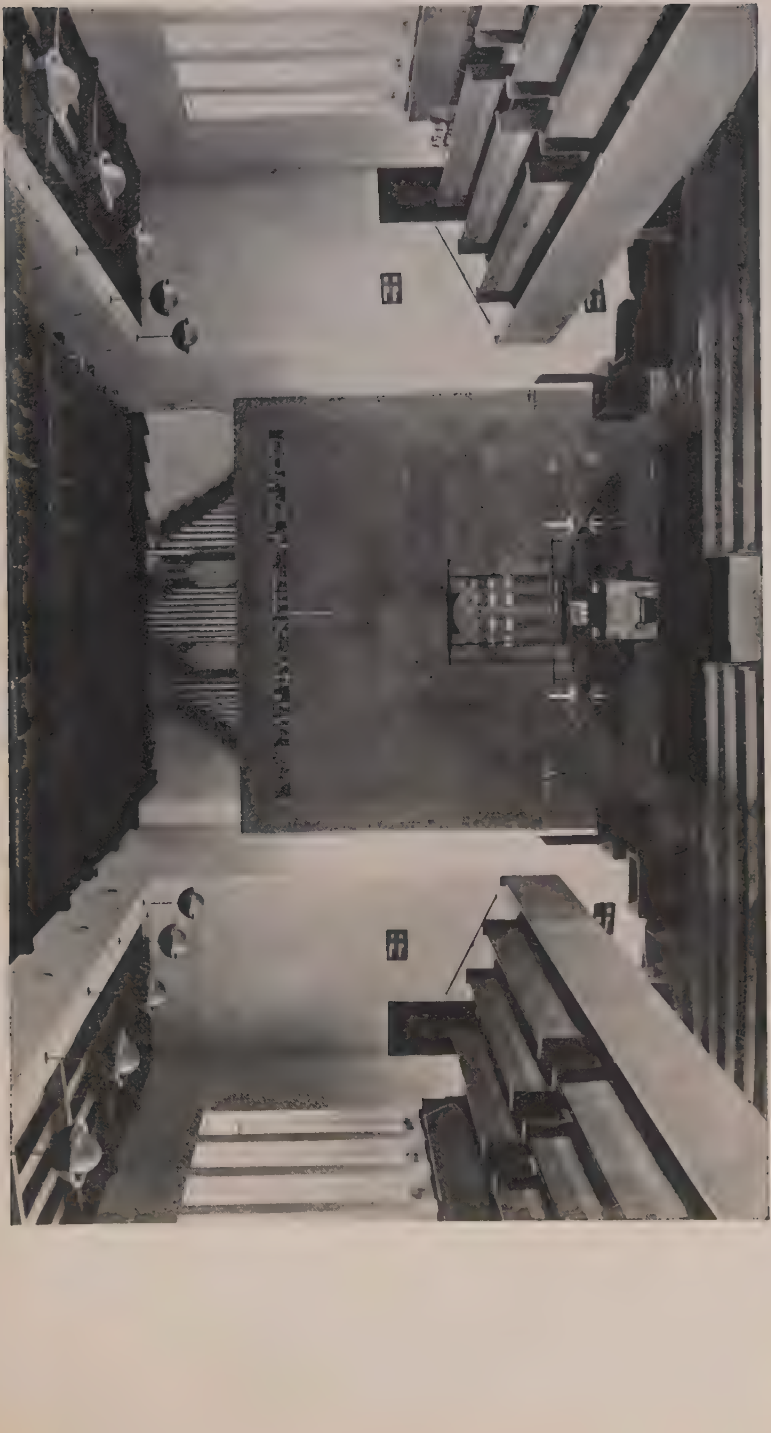


FIG. 11. "TEMPLE" IN HAMBURG

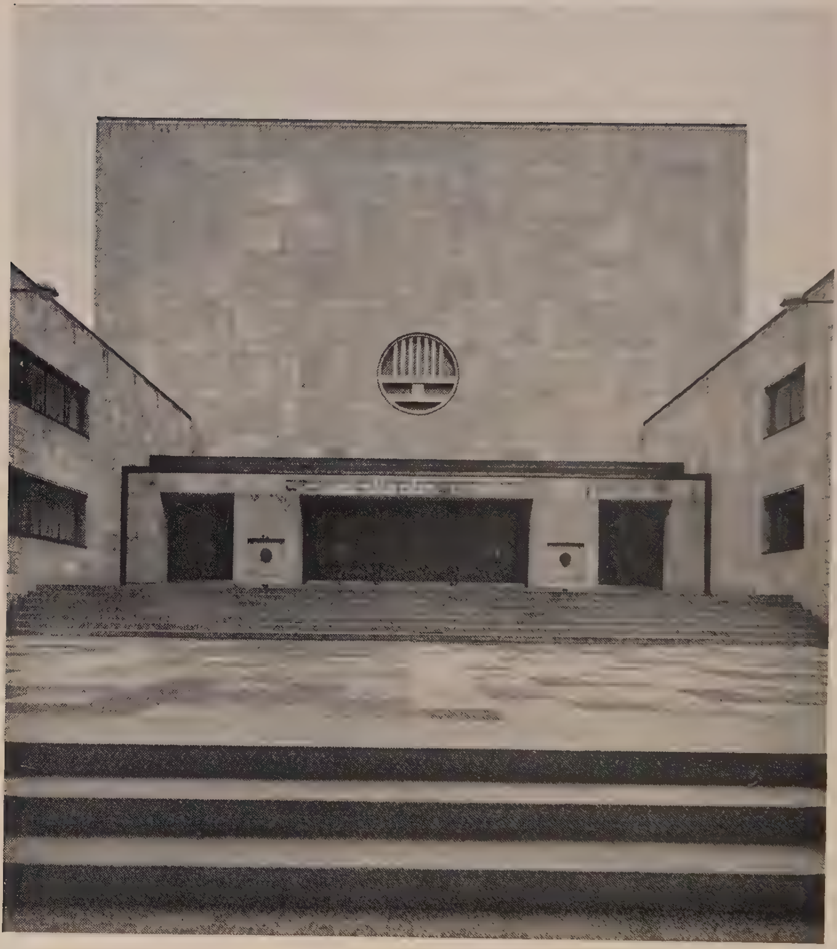


FIG. 12. "TEMPLE" IN HAMBURG

double aisles.[10] Such an arrangement was not general, as this pulpit is specially mentioned. It can be explained by the largeness of the building and its double row of columns, which obstructed the view of the congregation.

Incidentally it is worth noting, that the antique influence in Spain, mentioned above, is also visible in S. Maria la Blanca in Toledo, a synagogue, which like some antique ones, possessed double aisles.

That the centre of the synagogue was meant to be seen is apparent from the distribution of the mosaics in Beth Alpha, and in Egina, where the remnants of the pulpit have been found before the apse. In the Middle Ages, which continued for the Jews in Poland and Palestine right into modern times the Talmud tradition became all important. The description of the Alexandria synagogue was unduly generalized and therefore the pulpit was placed in the middle of the building.

The Sephardic synagogue in Amsterdam, of the end of the seventeenth century, shows in its general distribution of ground plan and galleries the antique tradition, which had never died out completely with the Spanish Jews.[11] Two similar synagogues can be seen in London, the earlier one being a copy of the Amsterdam model, the later one, the " Great " synagogue influenced by the art of Sir Christopher Wren, and the Adam Brothers. (Pl. IX.)[12]

Here it may be added, that the art of Protestantism in general and the influence it attaches to the sermon, offers a parallel to synagogue architecture, which may be, perhaps, more than a mere coincidence. A church like St. James's, Piccadilly, finished in 1683, emphasizing the importance of the sermon, introducing galleries, connected this favourite of Wren's churches with synagogue tradition.

In Palestine the influence of the Orthodox Church is felt in the " centralized " ground plan including the pulpit in the centre (cp. p. 200) as in the oldest synagogue in Jerusalem, the

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[10] Vitruvius applies his definition to temples, they may, however, be adapted to other types. Cp. *Der Morgen*, 11, 1935, p. 59 ff. *De Architectura*, III.

[11] *Theologische Blaetter*, 13, 1934, col. 289 ff.

[12] On Wren cp. C. Whitaker-Wilson : London (1932), p. 189 ; on the Adams : T. Swanbrick : Robert Adam, London 1916.

Eliah Synagogue. The ornaments show Turkish influence; an older part possessing a barrel vaulting may belong to the Middle Ages, the synagogue proper to the sixteenth or seventeenth century. (Pl. VII, 3, 4.)

In our times, Jewish artists conform to modern standards, and buildings, like Elte's synagogue in Amsterdam, or Friedmann and Ascher's synagogue in Hamburg, adapt the functional style to old religious needs. (Pl. X, XI)

The subject " the synagogue and the diaspora " has only been sketched here. But even so, one point seems to arise clearly: Jewish creativeness was fostered by religious and spiritual requirements. The forms were adapted from—often hostile—environments. The question of synagogue and diaspora reveals therefore one aspect of the wider problem of Jewish assimilation and Jewish independence.

REVIEWS AND PUBLICATIONS

La Légende Phénicienne de Danel. Par CHARLES VIROLLEAUD. (Mission de Ras Shamra, Tome I.) Paris, Geuthner, 1936.

La Légende de Keret, Roi des Sidoniens. Par CHARLES VIROLLEAUD. (Mission de Ras Shamra, Tome II.) Paris, Geuthner, 1936.

The Ugarit Texts. Ed. H. L. GINSBERG, B.A., Ph.D. Published by the Bialik Foundation of the Jewish Agency for Palestine, through Vaad Halashon. Jerusalem, 1936 (Hebrew).

The Ras Shamra Mythological Texts. By JAMES A. MONTGOMERY and ZELIG S. HARRIS. Memoirs of the American Philosophical Society, Vol. IV. Philadelphia, 1935.

DURING the past year two important additions have been made to our repertoire of Hebraic poems discovered at Ras Shamra-Ugarit in North Syria. These are *The Legend of Keret* and *The Legend of Danel*—both admirably edited by M. Charles Virolleaud in a new series inaugurated by the French Department of Antiquities in Syria.

The Legend of Keret describes a war fought by a certain king of that name against a coalition of Palestinian peoples headed by a chieftian named Terach. Among these people are the tribes of Asher and Zebulun, and part of the action takes place in Edom. The Biblical implications of this text are therefore obvious. Keret is the eponym of the Cherethithes who, according to I Samuel 30, 14, occupied part of the Negeb. He represents, more or less, the indigenous population of Southern Palestine. Terach, on the other hand, is the eponym of the marauding and invading Terachids, from whom the tribes of Israel claimed descent, Terach being represented in Biblical saga as the father of the patriarch Abraham. Asher and Zebulun, whose names are attested on the celebrated Egyptian *Aechtungstexte* as early as 2300 B.C., are two of the native peoples who later federated into the union known as the Children of Israel. Thus, the story is that of an early Hebrew irruption into the land, the invaders being the ancestors, in large part, of the later Israelites.

It would appear that Israelitic legend transferred to Abraham the heroic characteristics of the older Terach. This Terach, who is partially a moon-god (*cf.* Hebrew y-r-ch "moon"), has a wife Shin and a concubine Nikkar, in whom we may recognize the Mesopotamian deities Sin and Nikkal, the former feminized. These goddesses appear in the Israelitic story as Sarah and Milkah, for the names Sarah and Milkah are but the Hebrew equivalents of the Mesopotamian *sharratu* and *malkatu*, titles of the moon-goddess. Whereas the original story implied the lower status of Nikkar-Milkah by making her a concubine of Terach beside Shin, his primary wife, the Israelitic story conveys the same distinction by the device of making Milkah merely a sister-in-law of the patriarch Abraham. Moreover, it is to be remarked that the Ras Shamra story tells the tale from the angle of the native Cherethithes, whereas the Israelitic story tells it from that of the invading Terachids. Nevertheless, the heroic motifs are roughly the same, and this text therefore furnishes a striking example of how earlier Palestinian legend was transmuted by the Biblical writers. This is a point which is gradually receiving more attention in modern studies, but there is still much to be done in the way of delving behind the literature of Israel (particularly as regards the Psalms) and recovering the earlier Palestinian prototypes.

So much for the actual story. As for the philological exegesis of the text, it may be said at once that M. Virolleaud's treatment is, on the whole, eminently successful. He has succeeded in making out a consequential sense, and in determining the meaning of several highly difficult words. There are, however, one or two passages which are open to serious question. Thus, in the middle of the text, after a gap, we are abruptly introduced to a certain Pbl-mlk who demands large tributes from Keret. Keret, however, is ordered by the supreme deity El to send messengers to him whereupon he will

> " change to a mere grunt the roaring of his bull,
> to the tones of human voice the braying of his ass,
> to the lowing of a bull in the ploughlands the yelping of his wandering dog."

M. Virolleaud interprets this to mean that Pbl-mlk is miraculously to change the voices of various animals! Here he has sadly neglected Semitic idiom, for all that the text really means is that Pbl-mlk

> " will change to a mere grunt his bull-like roaring,
> to the tones of human voice his ass-like braying
> to the (contented) lowing of a bull in the ploughland his
> cur-like yelping! "

Pbl-mlk is evidently the king of some intervening territory. He will not allow Keret to pass through on his campaign unless he receives exorbitant tributes. Keret is thereupon ordered to make him " change his tone." As for the name Pbl-mlk, Virolleaud associates it with the Sumerian Pabil-sag whom he calls " a god " (p. 11). But Pabil-sag is simply the name of the constellation Saggitarius, and is therefore out of place here. More probably, this is a composite Asianic and Semitic name, like Pdr-mlk in the 1929 texts. Allowing for the regular interchange of n and l in Asianic languages, the element Pbl might indeed connect with the divine name *Pbn-s* in the Asianic text, 1929, IV. rev. 2 and marg. 1.

Virolleaud makes an excellent point when he says that the Sumerian character of the names Shin and Nikkar (Nikkal), consorts of Terach, support the Biblical story that the Terachids came from " Ur of the Chaldees." It should be remarked, however, that the name Shin already enters into the composition of proper-names in the *Aechtungstexte* (Olmstead, *History of Palestine and Syria*, p. 85), and into that of Shin-ab, king of Admah, in Gen. 14, 2.

A few philological points of interest may here be added: In ll.12–13 we read of the invading army of Keret: " Let his Righteousness (*Ṣdq*) drive out the pampered women (*mtrḫt*; *cf*. Ar. *r-ḫ-w* ' be soft,' pun on Terach!), let his Uprightness (*Yśr*) expel the wife of Terach." This shows that Ṣedeq and Yośer were regarded as guardian angels walking before an army, and we are thus able confidently to emend Psalm 85, 14: " Sedek walketh before him, and Yosher (1. *w-Yśr* for MT *w-yśm*) in his footsteps."—In line 71, the word for " silver " is the Hittite *ḫatuš*. On this it may be observed that *ḫatum* likewise appears as a word for " silver " in the Cappadocian texts and even in Egyptian *ḫ-z*.—In l.82

bt ḥbr " council-house " should be compared with the *beth ha-aśuppim* of I Chronicles 26, 15.—In line 91, where the army is described as *bl hg* " beyond thought," we may cp. the Assyrian expression *la ḫassa* in K.2801 r.15 and in Assurbanipal III.73 (v. Meissner, ZA.1895, p. 78).—In line 93, where it is described as *km yr* this means " like drops of early rain," i.e. innumerable ; for the expression, cp. Tallquist, Haḳedem I. p. 13.—In line 122, where the barking of a dog is called *zḡt*, this word must be explained as = *zḡdt* from the Arabic root *z-ḡ-d* " yelp."—Lastly, in line 148 the metal called *šrml* is, I think, the metal of *Š-r-m* i.e. Salamis in Cyprus, i.e. copper. The final *-l* is the Asianic genitive as in *barz-el*, with which cp. Georgian *beredj*.

The Legend of Danel is of a more complicated order. Four tablets have been recovered, but the order of these is uncertain. I believe that what Virolleaud calls Tablet I is really Tablet II, and this order has, indeed, been suspected by the French savant himself. It is only upon this basis that a connected sequence becomes possible.

Danel, an ancient hero, has no son. He therefore begs El to give him one, promising (like Hannah in the case of Samuel !) that the son will serve El and Baal in their temples. The son is born, and Danel repairs to certain goddesses called Kashiroth and of swallow-form, to render thanks. The son is called Aqhat.

The goddess Anat is jealous. She fears that Aqhat the prince will receive the first fruits which are really the due of her own offspring or fostering. She therefore orders her henchmen to break the cups of tribute presented to this lad, and threatens hostilities. Aqhat appeases her by promising her rich gifts, whereupon she undertakes not to deliver him over to his adversaries (" the Asherite and Hurrian ! ") unless he behave presumptously.

Then there is a gap. Aqhat is assailed by a god called Yaṭpan, emissary of Anat, who kills him. Danel institutes mourning, but calls upon Anat to punish Yaṭpan. The issue is not clear, but apparently Aqhat is revived, for at the end of the text there is a description of a banquet in which men of the fields and " they that dwell in tents," as well as Yaṭpan himself, bring first fruits (hlm ; *cf*. Hebrew *hillulim* !) to him.

An unplaced fragment describes how offerings are presented to the Shades (*rephaim* !) " on the day of summer-fruits " (*bym qs̱* ; *cf*. *qs̱* on Gezer Calendar !) and how they are believed then to haunt the threshingfloors.

In M. Virolleaud's treatment no such consecutive sense is made out, and it is to be feared that the story is somewhat disconnected and pointless. Indeed, it must be said candidly that his treatment of this text falls somewhat short of the standard set by his previous publications, and that the mythgical and folkloristic implications are almost entirely overlooked.

This poem is simply a nature-myth, clothed in the vesture of historical legend. Danel replaces the god Ḡazzar, and therefore bears the subsidiary title of Ḡazzar. Yaṭpan, as his name implies, is the genius of the small rains which precede the autumn downpour. Aqhat is a character of historical legend replacing Aleyan-Baal, Adonis, Attis, Osiris, &c., in analogous myths. Phrases and whole passages are duplicated in the Aleyan-Mot Poem, showing that they are derived from the stock of the resurrection-drama. M. Virolleaud should have seen all this, for then he would have been able to understand the whole point of the story. Anat is the consort of Baal, god of the rain, and her hostility to Aqhat is due to the fact that she fears an usurpation of Baal's rights. Yatpan, the soft rain, puts Aqhat to death, after Baal has previously withheld his rains in spite. Danel thereupon orders his daughters Paghat to water the earth as best she may. Paghat is called " she that carries on her shoulders the waters of *ḥ-p-ś-t*." Obviously, Paghat is the genius of the springs and of the waters of the ṡaḥab-clouds (*cf*. Biblical matar ṡoḥeph, Pr. 28, 3 of which *ḥ-p-ś-t* is a metathesis) which precede the autumn rains and give invisture to the dry earth at the end of the arid season ! The whole thing is a seasonal myth. Probably, it was enacted mimetically, and on one occasion the principal parts were taken by the king Danel and his son Aqhat (whose name cps. with Biblical Qehat and Sabean W-q-h-e-l). Thus, these names became standardized. In the same way, our English Arthur embodies mythological motifs of the saviour-hero, as does also the Biblical David.

Danel is called *mt-rpe*. Virolleaud thinks this is an additional proper-name, meaning literally " Death heals ! " I would suggest alternatively that it is an ethnic adjective, in which *mt* is the Assyrian *mutu*, &c., " man " (cp. Biblical ish Yehudah, &c.) and *Rpe* connects with the Biblical people called Rephaim. Thus, Danel is a Rephaite. This will explain why his enemy is called *mt uḫryt* " man of Hurriland " (II D. vi. 35) or *uḫry* " Hurrian " (I D. 155, 162, 169), for according to Deuteronomy 2, 11–12, the Rephaim were next-door neighbours of the Hurrians who lived in Seir !

By way of preface to his edition of Danel, M. Virolleaud gives a history of Ugarit, in so far as it can be reconstructed from the texts and from stray allusions elsewhere, and also a conspectus of the texts. From the latter it appears that the bulk of the material so far recovered has already been published. The sketch of the city's history is necessarily a mere outline, and does little more than bring together indications scattered over the texts. M. Virolleaud is inclined to dispute the identification of the place *Š-r-m-n* (also *Š-r-m-g*) with Salamis in Cyprus, first proposed by Dussaud., but there are points in favour of it which he ignores. Firstly, *Šrm-g* (with Asianic suffix *-gi*) stands parallel in one text with *Trḡ-zz* (with Asianic suffix *-zzi*) i.e. " Tarḫu's Town," and since Tarḫu is generally admitted to be identical with the classical Teukros, Teucer, it is at least noteworthy that, according to Strabo and other writers, Salamis was founded by Teucer ! Secondly, the Legend of Keret mentions a metal *šrm-l* which seems to be " copper," and which properly means " the thing from *Š-r-m*." The meaning " copper " would fit at once if *Š-r-m* meant Salamis in Cyprus, for that island was famous for copper (cp. the very name *copper* cyprum !).

Virolleaud also discusses the origin of the Ras Shamra alphabet, but his discussion is seriously limited by the fact that he dismisses without a word the view that the script was an adaptation from the " Sinaitic " and the type of writing recently found at Tell Duweir, Beth Shemesh, and now Byblus. This view, first adumbrated by Olmstead, has since been developed by Burrows and the present writer in some detail, and at least claims consideration or demonstration of tis error.

Our third volume is unfortunately restricted to a limited public, for it is written in Hebrew. This is the more unfortunate because it is the first collected edition of the texts, up to but not including Keret and Danel, and because it is a wholly admirable performance. Ginsberg has contented himself with purely philological notes and has eschewed any interpretation of the texts on the mythological side. His introduction merely gives what it is necessary to know about Ras Shamra and about the orthography of the documents. For the first time since Dhorme's pioneer edition, the 1929 texts are edited with commentary and where possible, with Hebrew rendering. A glossary-concordance further enhances the value of this work, which is produced at the extremely reasonable price of four shillings.

The reviewer does not endorse every interpretation given, but this is scarcely to be expected. Sometimes, however, serious errors seem to be committed. Thus, in 1929 III.39 there is no need to emend *kbd* to *nkbd*, for *kbd* is the name of a special kind of tithe-offering, explicable from the Minean *kabudath*. The seven Pamt who are sometimes mentioned are perhaps the seven Titanides of Byblus mentioned by Philo of Byblus, the name connecting with Arabic *p-y-m* and As. *piamu* " be doughty."—Ginsberg has not noted the fact, pointed out by the reviewer in OLZ 1935, 477 that the ritual texts often contain a kind of appendix at the end stating the part to be played by the king. Thus V.24 ff : *mlk ylk lqḥ elm ašr elm ylk p'nm mlk p'nm ylk* means " the king is to go to the courtyard (*cf*. Arabic قح ! Ginsberg reads *lqṭ*) of the gods, to the place of the gods (*cf*. As. ašru, S. Arabian atar sanctuary ') is he to go on foot ; yea, the king is to go on foot." In the deed for a house, 1929 No. 15 Ginsberg has not observed that *ddy* and *'my* go together and mean, after the Arabic, " my uncles, my kinsmen." Similarly *laḫdt* in the same text does not mean "I have taken it," or "for my taking," but is the Hebrew *le-aḫuzah* " for a holding, landed property " and refers to the fact that the house has been handed over to the writer of the tablet.—In the list of gods 1929, No. 17 Ginsberg reads the broken first word as (*y*) *rṣ* " may they shew favour," but surely (*a*)*rṣ* " Earth " is more likely, seeing that Ge (Earth) is definitely mentioned by Sanchuniathon. In line 9 is *Uśḫt* left without comment. I think it is a Semitized *washo* " god " of the Asianic pantheon, for *cf*. Hattic *waśḫab*, Kassitic *waśḫab* and modern Tcherkessic *waśḫo*. The name has been feminized, and u stands for wa, as elsewhere.—In regard to the list of names from the 1933 collection, the present writer's explanations in SYRIA 1935, 225–7 might have been utilized, for despite Albright's cavalier criticism most of the comparisons stand examination. To that article it may be added that Sdy in l. 15 might be an Hurrian hypocoristicon Sattiya (from rt. *satt-* " protect "), and that in l. 36 Abdḥr recurs on a South Arabian inscription recently published by Höffner. The name means " The father treasures up " (Ar. *dḥr* ; cp. BH. Eli-zaphan, &c.). In lines 21–4 the ethnic Uśkny may connect with Wassugani (also written Ussugani), capital of Mitanni !—In the colophon to the Aleyan-Baal Text, p. 69 the title " chief of the priests " (rb khnm) recurs on the archaic inscription from Byblus (fifteenth century B.C.) recently deciphered by Grimme in *Le Muséon*, whilst the complementary " chief of the shepherds " (rb nqdm) may refer to the tending of sacred sheep. The further title *š‘y* might indeed mean " prince " (cp. Keret, 200 and 305), as Ginsberg supposes, but I am inclined to connect it philologically with the word *š‘* frequent in the ritual texts and connecting with South Arabian *ṯ‘* and *mṯ‘t* " gift, offering " (*cf*. also Arabic *wṯ‘* " give " ?). Then, *š‘y*, as the title of a temple official, will answer exactly to the Assyrian *šurku* and the Hebrew *nathin* (in pl. *nethinim*), lit. " one given " sc. to the service of the sanctuary, i.e. an acolyte.

Especially ingenious is Ginsberg's treatment of the Hippiatric treatise found in 1933. That *pr ḥdrt* means " shred lettuce " is clever, for most of us were deluded into taking *pr* to mean " fruit." I am not so convinced, however, that when a thing is ordered to be poured " *baph* " this means " before him." I think it means literally " up its nostril." Further, Ginsberg has not noticed that the line (obv. 22) " when a horse roars " refers to a pathological condition still known as " roaring."

In an appendix Ginsberg seeks to show that Psalm 29 is a Baal-psalm worked over. He illustrates it from the Ras Shamra texts. This view was, however, anticipated by the present writer in *Folklore*, 1933, p. 382, n. 13, and will shortly be developed more fully in a study of pre-Yahwistic (or non-Yahwistic) elements in the Psalter.

Ginsberg is to be warmly congratulated on giving us yet another valuable contribution to Ras Shamra studies.

The last book on our list is of more limited scope, for it contains neither commentary nor translation. Moreover, only the mythological texts are treated, excluding Keret and Danel and " The Harrowing of Baal " which appeared too late. The editors' exegesis is confined to the Glossary. There are introductory sections on the discovery of the texts, their grammar, contents and structure. There is also a useful, though incomplete, bibliography. The texts are transcribed into Hebrew square characters.

The glossary contains several good suggestions, and it is gratifying to find that the South Semitic vocabulary is properly explored and exploited, for Virolleaud tends too much to appeal to Assyrian. An excess of caution seems, however, to have beset the editors, for several simple words are left without explanation. Sometimes, quite impossible interpretations are given. Thus, *qnṣ* " conceive " has no connection with Biblical *k-n-s*. It means literally " emmesh," and the semantic development is paralleled by French " enceinte." Similarly, *elqṣm* cannot mean " to their end," for *el* " to " nowhere occurs. It is an Arabism *al-giṣṣ* " gypsum." Again *'d* in the phrase *yrḫm 'l 'd* does not mean " eternity " ; it means " stone of circuit," as I have shown in OLZ, July, 1936. Again, *nṣbt* in a text describing such offerings as *ḥnn* " supplicatory-offering " and *ślm* " peace-offering," hardly means " statue." It is the Arabic *nuṣb* " statutory offering." These, however, are trivial points and are amply compensated by the many ingenious explanations which the Glossary contains.

Lastly, in bringing our survey to a close, it may be remarked that the study of the Ras Shamra material is at present hampered by the fact that it is being attacked too much from the purely philological angle. There is much still to be done on the folkloristic side, and indeed, it is often impossible to fix the sense of a word or passage except due regard be had to social and religious usage and custom. The present writer has been endeavouring to tackle the material principally from this angle, and although results are necessarily tentative and subject to revision, it would appear that study from this point of view has much to contribute. Certainly there is a necessity for widening the horizon, and the folkloristic method of approach need not be despised, as it occasionally is, by scholars who prefer to walk in blinkers.

THEODOR GASTER.

Churches at Bosra and Samaria-Sebaste. By J. W. CROWFOOT, London, 1937. British School of Archæology in Jerusalem Supplementary Paper 4, 1937. 5*s*.

Following a brief account of the results of former investigations especially those of de Vogue and Butler, Mr. Crowfoot decided to search for further evidence of the original plan of the cathedral in Bosra. As a result of his excavations the central ground plan including a collonnaded quatrefoil is clear, and there is also strong evidence of the main features of the clerestory and the roof which possessed no dome. Some of the conclusions reached by Mr. Crowfoot emphasize the importance of Bosra Cathedral as a large centralized church, and explains the development of this type from hellenistic models. It is likely that an ambo occupied the centre of the church. Incidentally, it may be added that centralization was not only a feature of the early Christian church, but also of one type of synagogue known from the Talmud description of the synagogue in Alexandria. The " Syrian " ending of the cathedral is not explained by Mr. Crowfoot as this would possibly have surpassed the scope of the present study. It is worth noting, however, that the excavations of A. Westholm (The Temples of Soli, Stockholm, 1936) reveal an antique tradition for this architectural type. This derivation is especially important, because the attempt to explain the type from liturgical reasons (cp. Archæologia XLIV, 1873, p. 383ff) is not convincing : the Byzantine procession touches only the middle and the north part of the church, so that the southern apse is architecturally superfluous. Therefore, this ceremonial was not the reason of the tripartite plan.

In the second part of his study, Mr. Crowfoot deals with the cult of St. John the Baptist and analyses the different architectural stages of the church which has now a centralized plan with four supports and a crypt. The main architectural features belong to the tenth to the twelfth centuries, and are influenced by the Byzantine tradition as are also the wall paintings (probably second half of the twelfth century).

The two parts of Mr. Crowfoot's study are independent of each other. They should form a welcome contribution to a history of religious architecture in the Near East, about which Mr. Crowfoot is so well qualified to write.

H.R.

The Committee have to acknowledge with thanks the following:

The Antiquaries Journal, April, 1937. Review of C. J. Gadd: The Stones of Assyria.
The Expository Times, April–June, 1937. Recent Biblical Archæology, by J. W. Jack (June).
The Scottish Geographical Magazine, 53, 2–3.
Religions, April, 1937.
Great Britain and the East, April–June, 1937.
The New Judæa, April–June, 1937.
American Journal of Archæology, January–March, 1937. Archæological Exploration and Excavation in Palestine, Transjordan, and Syria during 1936, by W. F. Albright and Nelson Glueck.
American Journal of Philology, LVIII, 2.
The American Journal of Semitic Languages and Literatures, April, 1937. The Book of Ruth, by W. E. Staples.
Bulletin of the American Schools of Oriental Research, April, 1937. Palestine in the Chalcolithic Age, by G. E. Wright. The Story of Jacob and Laban in the Light of the Nuzi Tablets, by C. H. Gordon.
Bulletin of the Metropolitan Museum of Art, New York, March–April, 1937.
Geographical Review, April, 1937.
Journal of the American Oriental Society, 57, 1. Studies in Oriental Archæology, I, Plano-convex Bricks, by V. Muller.
The Jewish Quarterly Review, April, 1937.
Bulletin de Correspondance Hellénique, LX, 1.
Journal Asiatique, April–June, 1937.
Nouvelle Revue Théologique, April–June, 1937.

Revue Biblique, April, 1937. Les fouilles d'et-Tell (Ai), by R. P. L-H. Vincent.

Archiv für Orientforschung, XI, 5–6. Die Reliefs der assyrischen Könige, IV, by E. F. Weidner. Review of H. L. Ginsberg : The Ugarit Texts, by T. H. Gaster.

Orientalistische Literaturzeitung, April–June, 1937.

Zeitschrift für die Alttestamentliche Wissenschaft, Die religionshistorischen Voraussetzungen der Kain-Abel-Geschichte : by A. Brock-Utne.

Biblica, 18, 2. Sur quelques inscriptions juives de Doura-Europos, by Cte. du Mesnil du Buisson.

Al-Mashriq, January–March, 1937.

Bible Lands, April, 1937.

ΝΕΑ ΣΙΩΝ, January–March, 1937.

Die Palästina-Literatur, Vol. V, pt. II. Edited by Prof. W. Thomsen. (Three copies.)

Onomasticon of Palestine, by Paul Romanoff.

Denkmäler der judischen Antike, by A. Reifenberg.

Journal of the Transactions of the Victoria Institute, 1936.

Die ægyptischen Listen palästinensischer und syrischer Ortsnamen, by A. Jirku.

PERIODICALS IN THE LIBRARY OF THE BRITISH SCHOOL OF ARCHÆOLOGY IN JERUSALEM

On examining the library of the school, just after taking up residence in Jerusalem, I found in particular, as mentioned in my annual report, that much needed doing in regard to the periodicals. While quite a number of these were fairly well represented, there were very many gaps in sets and runs, a lot of parts were unbound, and title-pages and tables of contents were sometimes missing or had been wrongly bound in—not seldom in the volume after that to which they belonged.

In November, 1935, sixteen periodicals were being currently received, so far as I could ascertain from the parts present, and there were only six complete sets in the library :

	No. of Vols.	Years.
1. *Annual of the American Schools of Oriental Research*	14	1919–34
2. *British Museum Quarterly*	9 ¼	1926–35
3. *B.S.A.J. Bulletin*	7 Nos.	1922–25
4. *Iraq*	1½	1934–35
5. *Quarterly of the Department of Antiquities in Palestine*	4½	1931–36
6. *Syria*	15¾	1920–35

The Honorary Treasurer, Sir Robert Mond, was informed of this, and generously gave £200 towards setting things right, with the result that between November, 1935, and the end of 1936 there had been obtained :

78	complete volumes
190	separate parts
8	supplements
7	indices

On 31st December, 1936, twenty-nine periodicals were being currently received, and the following eighteen sets were complete so far as then published :

SETS OF PERIODICALS COMPLETE AT END OF 1936

	No. of Vols.	Years.
Ancient Egypt	20	1914–35
Annual of the American Schools of Oriental Research	15	1919–35
British Museum Quarterly	10	1926–36
B.S.A.J. Bulletin	7 Nos.	1922–25
Bulletin of the American Institute for Persian Art and Archæology	3¾	1931–36
Bulletin of the American Schools of Oriental Research	63 Nos.	1919–36
Bulletin of the American School of Prehistoric Research .	12 Nos.	1928–36
Bulletin of the Jewish Palestine Exploration Society	3	1933–36
Bulletin of the John Rylands Library	19	1923–36

	No. of Vols.	*Years.*
Iraq	3	1934–36
Journal of Egyptian Archæology	21	1914–35
Journal of Hellenic Studies	55¼	1880–1936
Journal of the Palestine Oriental Society	15¾	1920–36
Liverpool Annals of Archæology and Anthropology	22½	1908–36
Morgenland	28 Nos.	1924–36
Palestine Museum Bulletin	4 Nos.	1924–27
Quarterly of the Department of Antiquities in Palestine	6¼	1931–36
Syria	16½	1920–36

Binding was begun in 1936, but had to be stopped in July owing to my absence in England. For the period January–July, the figures are as follows:

	Volumes newly bound	Volumes whose binding has been corrected	Volumes whose title on back has been corrected or amplified	Volumes repaired or rebound	
Books	8	—	—	7	15
Periodicals	81	37	181	15	314
Totals	89	37	181	22	329

The search for missing parts is being continued, and binding is being done as they are obtained. The names of all periodicals have been printed on their shelves in large type, for greater ease in finding them.

Although I cannot yet report that all our sets are complete, it will be gathered from the lists given above that the object of Sir Robert's gift, which was to provide readers with working tools in good condition, is in a fair way to being attained.

It is right that the additions now being made to the periodicals should be set on record, for while the improvement which is resulting from them is obvious to old habitués of the library, the completed sets will have, for new readers, no more than the appearance which they might reasonably be expected to have, and it may easily be forgotten that, but for this gift, they would have been very different.

P. L. O. GUY.

QUARTERLY STATEMENT, OCTOBER, 1937

THE
PALESTINE EXPLORATION FUND

NOTES AND NEWS

DURING the heat of summer field archaeologists rest from their labours with the spade, and occupy themselves with the very important task of acquainting the public with the results of their season's work. Mr. Starkey organized and carried through with his usual skill a most interesting exhibition of his latest campaign at Tell Duweir. The visitors were especially interested in a most admirable film which showed the work of excavation in actual operation. Mr. Starkey also gave a lecture at the Rooms of the Fund, on the occasion of the Annual Meeting of the Fund, on the relation of his work at Tell Duweir to the Old Testament. The bronze dagger of Hyksos date, which was one of the most important finds of this season's work, with its inscribed signs, has attracted much attention. (See Pl. VIII, Fig. 1, of this number.) The inscription is particularly interesting as showing a clear example of the survival of pictorial signs among purely linear signs as late as the Hyksos period.

The September number of *Antiquity* contains an important article on the Syrian city of Til-Barsib, by Mr. Mallowan. This city, the capital of the Aramaean state of Bit-Adini, first came into prominence in the time of Shalmaneser III, who captured the city and began the building of a palace there. The story of its excavation by a French expedition under the auspices of the Musée du Louvre has now been published by the well-known French archaeologists, MM. Thureau-Dangin and Dunand. Many important discoveries were made on the site, but the most important was that of the marvellous series of wall paintings which, in the words of Mr. Mallowan, " must take their place as the earliest outstanding landmark in the history of ancient painting." Most of the originals have unfortunately perished, and it is not at present clear why it was not possible to preserve more than the few fragments which are now to be seen in the Louvre and the Aleppo Museum. But before the frescoes disappeared they were very carefully copied by a good artist so that it will be possible to study them in these excellent reproductions. They throw new light on the character of Assyrian art.

The proposals for the partition of Palestine have satisfied neither party to the dispute, and a satisfactory settlement seems as remote as ever. Canon Phythian-Adams has criticized the proposed partition on the ground that it is at variance with the natural lines of demarcation constituted by the physical character of the country. Mr. A. M. Hyamson, another member of the Fund, has also pointed out in the *Manchester Guardian* the special difficulties in relation to Jerusalem created by the proposals. In the course of his remarks Mr. Hyamson says, " the incorporation of the new Jerusalem in any Jewish State would mean placing a further not inappreciable Arab population under Jewish rule, which it would most intensely resent and against which it would be in a state of latent or open revolt. Moreover, to connect Jerusalem with the Jewish State a long and indefensible corridor, Jewish in allegience, Arab in race and feeling, would also have to be added to the Jewish part of Palestine."

In this connection it may be interesting to reproduce, without comment, the comparative population figures for 1912 and 1937, as given by Mr. Guy in the same journal :

	1937	1912
Moslem	23,000	10,000
Christian	21,000	15,000
Jews	70,000	45,000
	114,000	70,000

A new and unexpected interest attaches to Bethlehem in the light of recent excavations in the bone-bearing beds of that place by Miss E. W. Gardner and Miss D. M. A. Bate. In 1934 the fossil remains of an elephant were discovered there, the first evidence of the former existence of this extinct species in this geographical region.

Since that date, as Miss Bate shows in the report appearing in *Nature* for 4th September of this year, the Bethlehem bone beds have yielded evidence of an extinct fossil fauna, which is not only almost entirely new to Palestine, but is also of earlier geological age than any found there hitherto. Further, from the gravels of these deposits have come " flints," which may prove to be the earliest trace of man in Palestine. These flints have been compared by experts with the much-discussed eoliths found by Mr. Reid Moir at Foxhall and Bramhall, and seem to point to the existence of pre-palaeolithic man in Palestine. Taken in conjunction with the discoveries of Miss Garrod, already described in this journal, this discovery at Bethlehem may prove to be of first-rate importance in connection with the problem of the distribution of early man.

FORTHCOMING P.E.F. LECTURES. Wednesday, 27th October. at 4.30 p.m. THE FORTY YEARS' WANDERINGS OF THE ISRAELITES. By MAJOR C. S. JARVIS.

Wednesday, 24th November, at 4.30 p.m. NEW TEXTS FROM RAS SHAMRA AND THEIR SIGNIFICANCE. By PROFESSOR S. H. HOOKE.

Wednesday, 26th January, at 4.30 p.m. ARCHAEOLOGICAL METHODS IN PALESTINE. By MISS KATHLEEN KENYON, M.A., F.S.A.

These lectures are held at 2 Hinde Street, Manchester Square, W.1, and admission is free to members and interested friends.

SUBSCRIBERS IN PALESTINE AND TRANSJORDAN: Please note that Dr. E. W. G. Masterman, of the English Hospital, Es Salt, has kindly consented to act as Hon. Local Secretary in succession to the late Lady Watson, and will be pleased to receive subscriptions on behalf of the P.E.F.

A notable event in modern Palestinian scholarship is the recent publication at Tel Aviv of a critical edition of the Apocrypha and Pseudepigrapha in Hebrew. The work, which is in two volumes, has been issued with the aid of the Bialik Foundation under the general editorship of Professor Abraham Kahana. It follows the model of the corresponding English edition by Charles, and is likewise the product of co-operative effort. The translation of each book is accompanied by a lengthy critical introduction (including Bibliography) and by a running commentary.

The difficulty of the task, and hence the success of its accomplishment, will be more readily appreciated when it is remembered that several of the Pseudepigrapha are written in a stilted Hellenistic Greek far removed from Semitic idiom, thereby increasing considerably the labour of translation.

The work has the added value, apart from its intrinsic merits, of introducing into Hebrew studies the best principles of Western critical research, and Professor Kahana, who has already produced the well-known *Perush Mada'i* (Scientific Commentary) to the Old Testament in the same style, is to be warmly congratulated.

For those who are interested, the address of the publishers is: Meqoroth Publishers, 15 Rambam Street, Tel Aviv, Palestine.

Churches at Bosra and Samaria-Sebaste: Supplementary Paper No. 4 of the British School of Archaeology in Jerusalem has been recently published at 5*s*. (see Review in *Quarterly*, July, 1937). The price of this work to annual subscribers of £1 1*s*. to either the P.E.F. or the B.S.A.J. is 2*s*. 6*d*. Orders should be sent to the Secretary, British School of Archaeology in Jerusalem, 2 Hinde Street, Manchester Square, London, W.1.

The Library of the British School of Archaeology in Jerusalem. The Director announces further progress with the bookbinding since his report in the July *Quarterly*. Between 1st January and 30th June, 1937, there have been :

Newly bound	182	vols.
Binding corrected	9	„
Title corrected or amplified	17	„
Repaired or rebound	9	„
Total put in order	217	vols.

THE LACHISH LETTERS (LACHISH I). The Wellcome Marston Archaeological Research Expedition to the Near East announce the publication at an early date by the Trustees of the late Sir Henry Wellcome of their important volume dealing with the discovery, transliteration and translation of the eighteen inscribed potsherds, found during the excavations at Tell ed Duweir (Lachish) during the years 1934 and 1935, and assigned to the early part of the sixth century B.C.

Professor H. Torczyner is responsible for the epigraphical section, and Mr. J. L. Starkey, L. Harding and A. Lewis are each contributors to the volume, which is being produced by the Oxford University Press at 25*s*.

THE SYNAGOGUE AND THE DIASPORA. By Dr. Helen Rosenau. The title of this article, which appeared in QUARTERLY, July, 1937, should have been amplified by the addition that it was a *Lecture delivered at the P.E.F. rooms on* 28*th January*, 1937.

EXCAVATIONS AT TELL ED DUWEIR

The Wellcome Marston Archaeological Research Expedition to the Near East

Lecture given at the Wellcome Research Institute, London, 16th July, 1937

By J. L. Starkey

The Wellcome Marston Archaeological Research Expedition to the Near East has now completed its fifth season at Lachish. Despite initial fears that the political conditions in Palestine might make work inadvisable, the winter has been a most peaceful one for the southern district, and lines of communication with the seaboard at Gaza, and the hill centres of Jerusalem and Hebron, were maintained without any untoward incident. The greatest troubles have been due to the abnormal rainfall, which has been general in Palestine—far in excess of anything the Expedition has known in the last ten years. These conditions have slowed down work considerably, it is impossible to sieve or to make a minute examination of the soil when it is saturated. Our loss has certainly been the agriculturist's gain, and the summer crops of maize and water melons should be exceptionally good, and may permit some of our poorer neighbours to extricate themselves from the hands of the moneylenders.

In accordance with our usual policy, we did our quota of work in ground beyond the fortifications of the ancient city. We started early in the season at the head of the western valley, following on the general clearance to bedrock of the saddle area, which is now completed.

Here the alluvium and boulders were piled to a depth of eight feet over bedrock, and our deep workings were completely flooded out by the first rains. It is necessary that this area should be fully explored, before it can be used as a dump for the newly exposed low roadway levels within the city gate.

Our Arab workers were then put on to examine the better drained ground, flanking the west side of the stream bed of the Wadi Ghafr, further to the north. There were indications that a cemetery of the Late Bronze Age might exist here, the actual spot selected for the initial exploration was controlled, however, by seasonal agricultural requirements ; we worked adjoining newly-ploughed furrows and after a few days we found that we were uncovering the surface of a Roman road. It consisted of a broad carriage way, flanked to the west by an alignment of large stones, while its other side was bounded by the foundations of a stone wall, which suggests the base of a small aqueduct. East of the wall, and parallel with the roadway, was a narrow footpath, with a rough stone curb. The roadway follows the line of a well-beaten camel track in a south-westerly direction. Where it rises up out of the valley, it skirts the ruins of an ancient dam, known to-day as Birket en Nebi, " Pool of the Prophet," and it may be that the water channel was used in connection with this reservoir. Southward beyond this point the road can now be identified by alignments of stones for over a mile.

From the road surface we have collected coins, mostly of the third and fourth centuries A.D., including a small bronze of Arcadius, 395 A.D., Licinius, 307 A.D. and Constantine I, 306 A.D. The discovery of this Roman road fills a lacuna in our topographical evidence for the identification of our site with Lachish. It has often been pointed out that Lachish should be six Roman miles from Beit Jibrin, as Eusebius states that Lachish was at the sixth mile on the way south, to Daroma from Eleutheropolis (Beit Jibrin). We have always wondered where the Roman road was that Eusebius had in mind, for obviously he was thinking of distances in terms of the road system of the period. The line that the road takes from Lachish to Beit Jibrin has not yet been traced; it seems to be, in the main, a valley road, and much of it must lie buried under the alluvium, which, as we see in the section we have just uncovered, may be some five feet under the plough ; such deposition emphasizes the extent of the denudation of soil from the foothills since late Roman times.

The base of the slopes at the north-east corner of the Tell was next investigated. Here again the ground was well drained, and we were able to augment our working gangs by labour that had been held up on Tell work by the state of the ground. One of the dominating reasons for opening this new area was to establish the exact position of the Hyksos fosse. An interesting surface find from this region was a small steatite scarab, engraved with the name of one of the lesser known kings of the sixteenth dynasty, Aa-hetep-Ra, with the usual description " The good god, giving life." Scarabs of this king are rare, five only are so far recorded, and these constitute the only evidence of his existence. It indicates the close contact, in this dark period of Egyptian history, with patriarchal Palestine.

During our first two seasons, we cleared adjacent sections of the Hyksos moat at a point where it turned the north-west corner of the mound and presumably continued along the north side of the city.

As surface indications offered no clue to its position, we started low in the valley where the first outcrop of rock appeared. Very soon tombs were struck, and in the now exposed escarpment of eocene chalk three small quarries were found, which had been worked from Middle Bronze to Byzantine times. Almost all the rock-cut tombs in this region had been re-used and plundered anciently. One of the first to be found was a single chamber entered by a flight of steps; it contained pottery of the early Judaean kingdom with pieces of fine burnished ware; some two dozen heavy bronze bangles and anklets were recorded and a bow-backed fibula in the same metal. A glass scaraboid bears a figure, half human, half fish, with upraised arm, probably the fish god Dagon, or, if the human part is female, have we here the earliest representation of a mermaid? Besides some glass beads, in the same perfect condition as the scaraboid there were two beads in finely polished banded onyx, probably importations from Mesopotamia.

An unexpected surface find in this region was an oval scaraboid in banded carnelian quartz, beautifully polished and bearing on the underside three registers; the top one shows the winged uraeus and the " ankh " sign, while the middle one bears five Hebrew letters of the name Shifaṭyahu, prefixed by the possessive L, meaning " To " or " For." The last register has six letters, starting with the final letter of the previous name, and the second personal name is Asyahu. Apart from the interest of the names, this seal, I think, gives us the first example of the letter " teth " in the lapidary's script. The serpent and " ankh " occurring on a seal of a man whose name and parentage savour so strongly of orthodoxy, shows the indelible influence of Egyptian cults.

Close to this tomb, but rather lower down the slope, we came on to a stairway and outer chamber of a large triple chambered tomb of the late Hyksos period. The roof of the outer chamber had collapsed anciently, and as we took out the fallen rock, we were struck by the curious black staining on it. As we worked down, the walls were seen to be similarly coated, and when pottery fragments appeared, these—together with remains of human skeletons—afforded an explanation. The bones were in varying stages of calcination, all smashed, as was so much of the pottery, into minute pieces. It became increasingly clear that the contents of all three chambers had been rifled and then burnt *in situ*. The walls and roof of the two subsidiary rooms presented the same appearance, only here the deposit of soot on the walls was even plainer. One of the first small objects recovered was a large rectangular plaque in steatite, deeply engraved on both sides, showing crocodiles supporting a conventionalized palm tree. This seal is one of a hundred and ninety-two scarabs and seals (Pl. II, Fig. 1, and Pl. IV, Fig. 2) which escaped destruction, many such must have been reduced to powder, and the designs of some two dozen of those collected had been obliterated.

Fifty-four pottery vessels, in moderate condition, remain from the destruction of a total of some five hundred. The pottery ranges from quite early XVIth–XVIIth dynasty (with strong Hyksos contacts) down to the early thirteenth century B.C. (with the familiar decorative motifs of the Ramesside period). A long period is also emphasized by the lamps ; the series starts with the flat type with slightly pinched lip and inturned rim and goes on to the deeper forms with outturned rim and a long pinched lip for the wick.

The date assigned to the pottery is borne out by the many scarabs with Royal names ; the Hyksos king Pepa, " Apophis " of classical writers, is represented by two examples, one showing the fine spiral design so characteristic of the twelfth dynasty, the other more roughly cut with the same name and titles. These, with other design scarabs of the " Hyksos " period, may be survivals, although we must expect that the " Hyksos " style of design and cutting would have continued in use until well after the Thotmosside conquest. There is also a scarab of an official, who bears the title " Overseer of the Temple ; " by its style it should be XIIIth dynasty, and it can be regarded as an heirloom.

The XVIIIth dynasty Pharaohs, represented by their scarabs, commence in this tomb with Thotmes III, whose conquests made Palestine part of the Egyptian Empire. Scarabs of his successors, Amenhetep II and Thotmes IV also occur, and as we should expect, the greatest number are of Amenhetep III's reign, as this was the peak of a prosperity which seems to have lasted throughout the period of Egyptian control. Though no royal names of the XIXth dynasty were found in this group, there were examples of design and style which are as late as the reign of Rameses II, such as the triad of Ra and Horus, either side of Amen. (Pl. II, Fig. 1.)

Deductions drawn from the absence of later royal names would be unjustified, as the contents of adjoining tombs show. Tomb 4011, although badly plundered, produced some pottery of the Ramesside era, six scarabs, one bearing the Sa Ra name of the Pharaoh Ay, Kheper-Kheperu-Ari-Ra. He was the high priest who came to the throne on the death of Tutankhamen, and who figures in the funerary scene on the walls of the inner chamber of the royal tomb. Ay's successor was the old general Horemheb, who no doubt worked hard to keep the country together, and who made the first attempt to regain Egypt's lost prestige in her northern empire. (Pl. II, Fig. 1, and Pl. III, Fig. 2.)

A scarab bearing his name Zeser-Kheperu-Ra, Setep-en-Ra, occurs in yet another group from Tomb 4013, with a scarab of User-Maot-Ra, Setep-en-Ra, Rameses II (Pl. II, Fig. 2, and Pl. III, Fig. 3) showing the continuity of Egyptian influence from the time of the Thotmosside conquest to the early part of the Ramesside period ; it confirms the evidence of the continuity of the XVIIIth–XIXth dynasty temple. In this latest group, we get a re-issue of the founder of the XVIIIth dynasty, Aahmes I

Neb-Pehti-Ra, showing the veneration in which the man who expelled the Hyksos from Egypt was held. It is interesting that he was still commemorated in Palestine at this late time.

Just below the region of these rock-cut tombs, twenty-two feet under the surface of the valley alluvium, we came upon an unexpected deposit of animal bones, doubly sealed by a Hyksos burial and a lime-plastered floor. The collection consisted of the remains of donkeys and dogs, the skeleton of one dog was undisturbed, this was successfully removed and brought to London, and is the earliest complete skeleton of a domesticated dog from Palestine. It appears to be of the " seluki " type the dog probably first brought to England by the Crusaders, and from which the modern greyhound has been bred. The " seluki " is greatly prized in the deserts of Arabia, and ranks next in esteem to the horse. The potsherds found with it and its position sealed in by the Middle Bronze Age grave, makes it certain that these animals must belong to the early third millenium B.C.

Our work within the city fortifications, was confined to two main areas, the region of the great shaft (Pl. I), and the town south of the Palace-Fort. The great shaft was partially examined last season, and by locating three corners we had established the length of its sides to be seventy-three feet eight inches from north to south and eighty-four feet five inches from east to west. Our first problem was to find the depth of the bottom ; to reach this we sank a second shaft down the south-east corner from the end of our original horizontal tunnel along the south side. This shaft was not opened up to the surface, permitting the continuation of subterranean work regardless of weather conditions.

Naturally surface water did eventually percolate through the water-laid filling, and down the sides of the rock walls of the shaft, but the possible danger of serious flooding was in this way eliminated. Our original shaft at the south-west corner (Pl. IV, Fig. 1), by which access was gained to our horizontal tunnel, was deepened, thus providing a sump for surface drainage, that would otherwise have flooded our workings.

On reaching the rock bottom at seventy-five feet, we examined the base of the east side by tunnelling to the north-east corner. In this clearance, masses of fallen boulders from the collapsed city wall made progress difficult. All the larger pieces had to be broken up before being lifted by our light tackle to the surface. Mixed with this deposit of stone, was much charcoal and broken burnt brickwork, thereby demonstrating that the first fall of debris coincided with a period when the city was destroyed by fire. An attempt was made to tunnel to the centre of the shaft, this unfortunately failed, owing to the stones being loosely packed, the lighter silt having drained away through the interstices of the stones to the west, which we therefore presumed had been excavated to a lower level. This assumption was confirmed when we reached the base of the shaft, at the south-west corner, after tunnelling along the south side. Here the fallen stones ceased and sound tenacious clays provided a better roof and sides to our passage. However, the evidence of burnt debris on and above the rock floor was as noticeable here to the west as it had been in and below the collapsed walling to the east. The rock walls of the shaft, as exposed in our tunnels, show remarkably clean cutting by the ancient quarriers ; the scars of the excavators' tools indicate a short-handled iron pick, and the Rev. Father Vincent, of the École Biblique et Archéologique Française in Jerusalem, was struck with the close similarity of the technique of rock cutting, with the tool marks visible on the walls of the Hezekiah water tunnel, through Ophel, under David's Jerusalem.

There are still some points in connection with the construction of our great shaft, which have to be explained. Does a smaller well or shaft descend from the floor ? So far we have only been able to examine the rock base of two sides, and we hope next season, if the water-laid deposits are sufficiently free from boulders, to reach a central point, by tunnelling in from the middle of the west side. From the conditions of the rock cutting, particularly the region of the south-west corner, we are led to believe that this great example of ancient engineering may have been abandoned before completion ; the undercutting of the rock floor, at the south and south-west corners, suggest that this may be the case. The project may have still been in hand at the time of the first threat of Babylonian invasion, and no doubt the amount of labour employed would have been required on more urgent defensive works and the quarried blocks of limestone would have provided handy building material. The smaller chips were being utilized for Government work within the city. The question of date we shall leave for the present until these further points are considered in their proper context.

South of the Palace-Fort, we continued the excavation of the upper burnt city levels. Badly ruined dwellings containing small rooms were found terraced up over the sloping earth ramp, piled against the footings of the great stone podium of the Judaean keep. The floors of almost all the rooms were covered with a heavy deposit of charcoal and ash, and vast quantities of potsherds were collected from them. Precisely the same conditions prevailed as in the workshops cleared last year to the west. The rooms at the base of the ramp showed in some cases two distinct burnt floors, and to establish these observations definitely, we opened up a section immediately within the inner gate, where the burnt roadway had been exposed, contemporary with the floor level of the open court or guard room where the Lachish Letters were found.

We first came upon the stone lined channel of the city drain belonging to this road ; below it was a similar construction, falling from the east, choked with carbonized deposits. This lower drain was now seen to be connected with a well-laid road surface from which a broad cobbled sill rises. East of the sill, the road dips gently ; it had been carefully surfaced with crushed chalk chip and stones. Beyond, it has been traced rising to within two feet six inches of the Tell surface, where plough and hoe have completely destroyed it since Roman times. (Pl. V, Fig. 1.)

Separating the upper from this lower roadway, at the western end of the sounding, are eight feet of piled brickwork and lime plaster, the burnt remains of great towers, which once flanked the inner gate. (P. 171, *P.E.Q.*, July, 1937.) This mass is sloping inwards damming the natural drainage passage for storm water through the gate, and accounts for the clean silt that is piled up over and against the slope of this mass. Here, then, we have a unique section, clearly defining the two burnt city levels. We have already suggested that the upper one should be equated with the final Babylonian attack, the horizon to which the Lachish Letters belong, and this lower or earlier burning may equally well be tentatively assigned to the first threat on Judah's independence, about 597 B.C., of which we read rather confused accounts in the Biblical records. One thing is clear from the evidence of the pottery collected from the houses ; the lapse of time between these two catastrophes is so short that it is impossible to differentiate one series from the other on typological grounds, therefore an interval of about ten years would be quite consistent with our present archaeological evidence.

Apart from the clearance and planning of the private houses, our work has been extended to the high terrace area, east of the Palace-Fort, where large rough-cut blocks of local limestone littered the surface. Below only a foot of black humus, the bright pinky-red debris of the massive upper brick wall was exposed, which had fallen outwards bringing with it the remains of large storage jars, thrown headlong from the palace floor level above. Some of the handles bore the impress of the usual government[1] stamps. This fallen brickwork was now seen to overlie a well prepared courtyard, paved with crushed limestone chip, similar in quality to the prepared road surface. (Pl. V, Fig. 2.) Here we may see the use to which the masons' chip was put from the excavation of the great shaft, and from the evidence for the date of the early road surface, we would venture to suggest that the work on the great shaft may have been suspended at the news of the first Babylonian advance. The commencement of this project may be assigned to the second half of Josiah's reign (circa 625 B.C.), a work blotted out, as in the case of the pavement, by the evidence of destruction.

This great courtyard area, with its crushed stone surface, extends for more than ninety feet eastward, and explains the table-like appearance of the ground to-day. By the presence of a number of circular " silos " or grain pits, cut down through the burnt brick rubbish, it would appear that during the occupation of the Persian residency, which we demolished three years ago, this region had in post-exilic times been reserved for the same purpose, and used as a municipal grain store. Before leaving the subject of the plastered courtyard, I should mention one interesting point, which shows how the palace wall had been thrown down. The photograph shows the plastered surface of the courtyard, which was perfectly free from the usual deposit of charcoal and black ash, in contrast to the lime covered floors of the palace above. These are all badly burnt, it therefore seems clear that the palace had been fired from within, which reminds us of the numerous Biblical references to the wilful destruction by fire, even after cities had fallen. It is of little wonder that nothing of value was found on these burnt floors—plunder had preceded destruction.

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[1] The well known " LMLK " type referred to in previous reports.

Built against the south-east corner of the fort, a large rectangular building has also been examined ; it had originally been constructed of mud brickwork, laid on very solid stone foundations. (Pl. VI, Fig. 1.) Unfortunately this ruin has been denuded to below its floor level, which rested on a mass of constructional rubble consisting of town debris, which had been thrown in from north to south. This building must, therefore, have stood high above the main sunken roadway to the south, with doorways opening, perhaps, on to the high courtyard level east of the palace. By the size of the building, together with the character of the internal partition walls, making five long parallel chambers, devoid of secondary cross walls, we may perhaps assume that it was a government storehouse. Its position adjoining the south-east corner of the citadel, might suggest that its upper story would have been adapted for defence. The system of throwing out rectangular structures beyond the corners of the forts is not an unusual feature of Iron Age defence in Palestine. Although the building is destroyed, the rubbish filling its foundations is of the greatest interest to us. The potsherds were unmistakably Late Bronze Age and it became evident that the horizon from which they came had been dug into by these later builders. Quantities of sherds were from vessels of the local decorated type of the late XVIIIth–XIXth dynasty, similar to those found in the graves producing the scarabs. Many fragments were recovered of large decorated vessels of imported Mycenaean ware of the late thirteenth century B.C., and enough pieces of another vase have been recovered for restoration to be attempted. This shows the octopus motif, with undulating tentacles extended to cover the upper part of the vessel. With them are specimens of a curiously surfaced grey ware with wavy combing, which have been identified with wares occurring in Troy VIIa and Tell Abu Hawam—certainly they are all foreign to our district. From this same deposit, comes a finely-engraved carnelian scarab bearing the name User-Maot-Ra, Setep-en-Ra, Rameses II. This scarab has certainly been subjected to fire, its surface has a greyish patination, and discoloration and fusing is a feature of so many of the decorated sherds in this deposit.

It was here also that we collected twenty-five fragments of a small open pottery bowl, inscribed spirally both inside and out. (Pl. VII, Fig. 1.) Since it has reached London, Dr. Alan Gardiner with Dr. J. Černy have recognized the script as Egyptian hieratic of the thirteenth–twelfth centuries B.C. Dr. Černy has very kindly made a hand copy of the inscription and has given us a reading:

Inside is written: " Year 4, 4th. month of Inundation day 26 . . . chief (??) of (the land) . . . tisha 1 [. . .], wheat [measures] 1000 plus x hundred from the harvest of . . . " Outside the inscription reads, as far as its faintness will permit " In the year 4, 2nd month of Inundation, day . . . wheat [measures] 420 . . . 1000 . . . year 4, 4th. month of Inundation, day 1, wheat [measures] 300 + x + 3 . . . 900 ."

The significance of this inscription is obvious, first we learn that the authorities at Lachish were using the Egyptian calendar and the Egyptian system of numeration, the actual dry measure employed is, unfortunately, unreadable; the bowl, I suggest, after having been docketed at the government granaries, had probably been used by the representative of the chief (or sheykh) of the district making the tribute at a ceremony which perhaps we might compare to our harvest thanksgiving—a small sample of the three instalments being offered up.

Besides the fragments which build up this bowl, there are two other small pieces of different types of bowl, also of local ware, bearing a few hieratic signs, one reading " this day." (Pl. VII, Figs. 2 and 3.) We were naturally anxious to know just where this horizon lay, which had furnished all this ballast for the Iron Age builders, and, at the end of the season, we put on a man to cut down the soil adjoining the north-west corner of the

Palace-Fort, where we now recognize that the earliest masonry occurs. Hardly six inches below the bottom stone course, burnt brickwork was struck and at twelve inches, a deep layer of pure black ash was seen to cover the trench, and it ran on under the foundations of the building. Projecting from the line of the Iron Age foundations, was a course of finely-dressed limestone blocks, and lying against them a section of a small octagonal column. This, with the remains of the columns of the Persian residency, are the only architectural details that the city has so far produced. In the ash bed, we collected gold foil, fragments of a green glaze faience bowl and pieces of a small buff pottery bowl, of a type found in the upper levels of our XVIIIth–XIXth dynasty temple, with the ivory toilet objects and scarabs, buried in the ashes which produced the fragments of the Duweir Ewer. Here, once again, we find that the burning of the temple was not an isolated event in the city's history, but was part of a general calamity which marked the end of Egypt's control, in the twelfth century, towards the close of the XIXth dynasty.

It is to this region, north of the Palace-Fort, that we hope to return this autumn, to open up the northern terrace that runs out from the walls of the Iron Age keep. It is interesting to note that it is here that we lose the obvious signs of wealth, and it is perhaps well to remember to-day the lessons taught us by the spade of the archaeologist, that Palestine has always been most prosperous, as far as the material blessings of life are concerned, under strong foreign control.

An interesting discovery was made last winter in the laboratory of the Museum in Jerusalem. The Government Chemist, working on the preparation of metalwork for exhibition in the new Bronze Age gallery, discovered that a copper dagger which the Expedition found three years ago, was inscribed. (Pl. VIII, Fig. 1.) One side of the blade is now seen to bear four pictographic signs, deeply cut ; the two central pictographs form part of the Sinaitic signary ; of the other two, the upper one seems to be quite a new form, the lower one is found on early inscribed objects from Crete and the Aegean. The importance of this addition to the early inscriptional material from Lachish is that the inscribed dagger can be assigned quite definitely to a date perhaps before, but not later than 1600 B.C. As Dr. Gardiner has pointed out (*Times*, 16th July, and T. Gaster, 30th July) it has an important bearing on the main question as to what date should be assigned to the beginnings of the development of the proto-Phoenician scripts, from which our own alphabet is derived. That clear pictographic forms were in use in the Hyksos period, leads him to prefer a later date for the Sinai inscriptions, which he had previously suggested might be XIIth dynasty. From the style and quality of workmanship of the dagger, it can confidently be claimed that it is of local origin, which precludes the possibility of its having been a foreign importation.

Thus our new discoveries at Lachish have added a number of pieces of historical evidence, that will in turn fit in to that larger historic picture of Palestine and her powerful neighbours. The prospects of future work in the city levels promise good results, and we hope that the anticipated changes in administration in Palestine will make permanent over the whole country the peace that we have been fortunate enough to enjoy at Lachish.

The Expedition's staff has again most loyally supported me, and without their enthusiastic co-operation much that has been achieved this season could not have been accomplished in the time. The work on the great shaft proved a most trying business, with day and night shifts, and their resourcefulness was taxed to the utmost. We much regret that Mr. Harding has left us to take up the position of Archæological Adviser to the Emir Abdulla of Transjordan, and we wish him all success in his new responsibilities. At Lachish I have again had the help of Miss Olga Tufnell, Mr. Charles Inge, Mr. Holbrook Bonney and Mr. H. W. Pummell; Mr. and Mrs. Warren Hastings, and Miss Joan Crowfoot joined us, as well as Miss Barbara Parker, who with Mr. James Kirkman were both students of the Institute of Archaeology. The photography was again in the capable hands of Mr. Richmond Brown.

We tender our most heartfelt thanks to the Trustees of the late Sir Henry Wellcome, who with Sir Charles Marston and Sir Robert Mond have again made it possible to carry on, not only this season's work at Tell ed Duweir, but also to

COMMENCEMENT OF WORK ON SHAFT IN SOUTH-EAST DEPRESSION

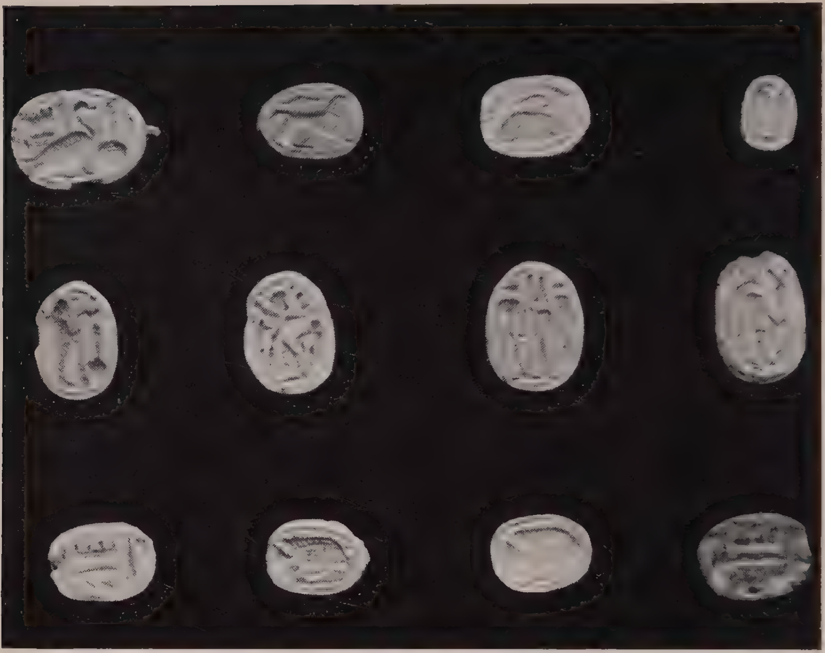


FIG. 1. SCARABS FROM THE TRIPLE CHAMBERED TOMB. LATE XVIII EARLY XIX DYNASTIES PERIOD

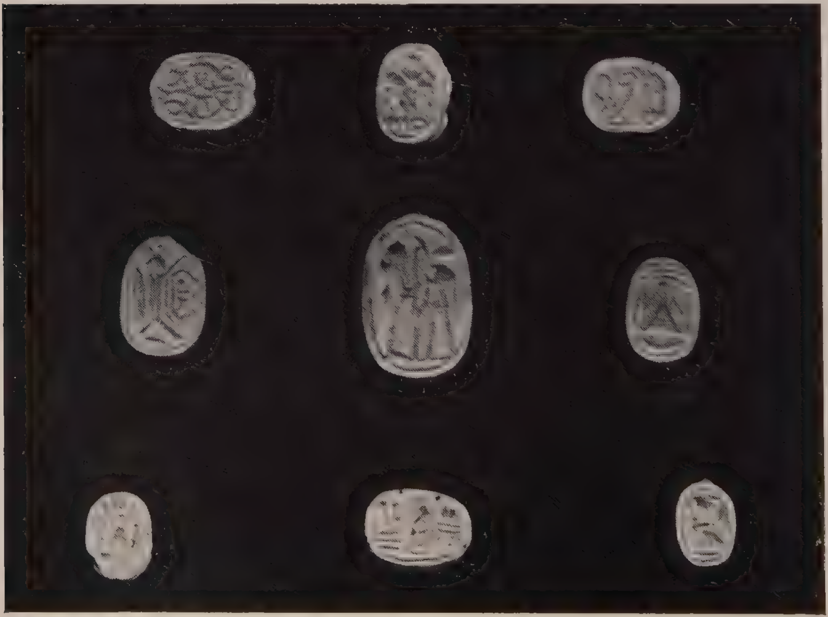


FIG. 2. 1ST AND 2ND LINE: SCARABS FROM TOMB 4011. TOP CENTRE: AY
3RD LINE: SCARABS FROM TOMB 4013 L. TO R. HOREMHEB, RAMESES II AND AAHMES

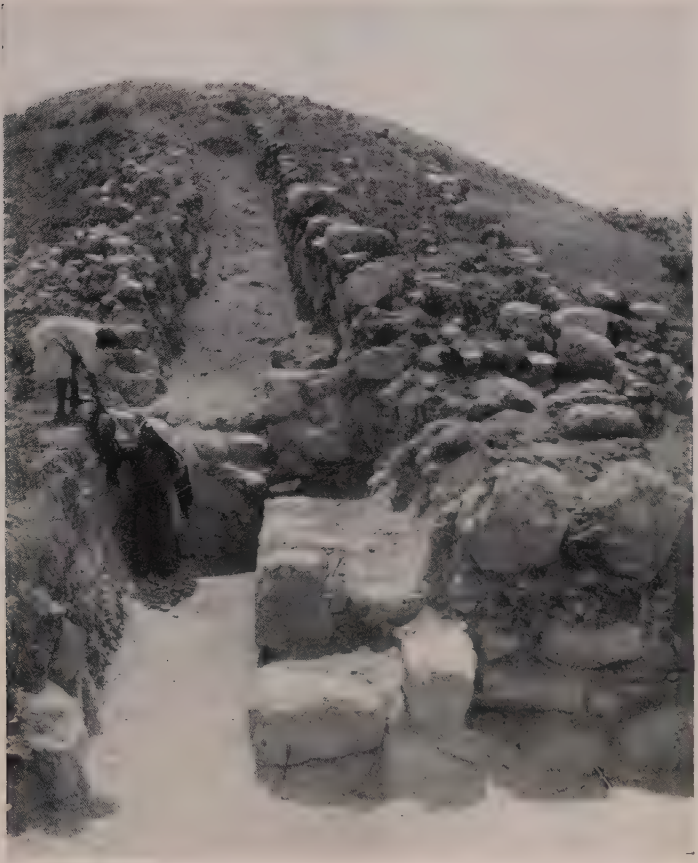


FIG. 1. FROM INNER CITY GATE, LOOKING ALONG CITY WALL, CONSTRUCTED AFTER FIRST BABYLONIAN ATTACK (597 B.C.) TOWARDS S.W. CORNER OF TELL

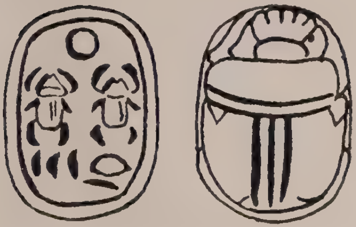


FIG. 2. KHEPER-KHEPERU-ARI-RA. SEE PL. II

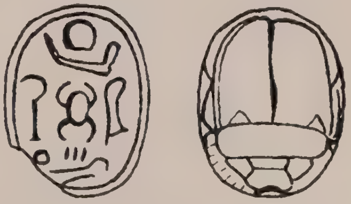


FIG. 3. ZESER-KHEPERU-RA-SETEP-EN-RA. SEE PL. II

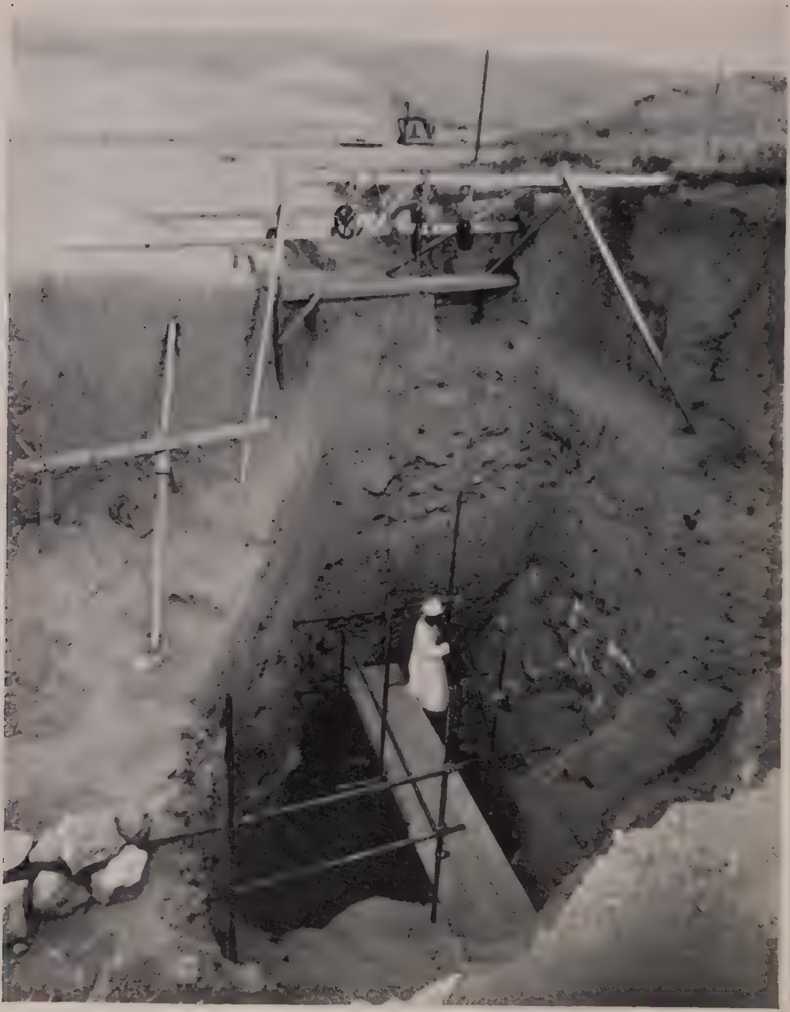


FIG. 1. LOOKING DOWN INTO S.W. CORNER OF ROCK-CUT SHAFT IN S.E. DEPRESSION

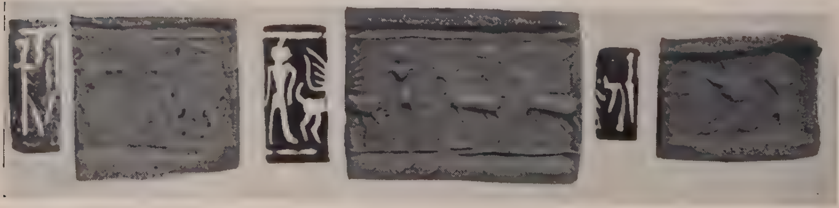


FIG. 2. CYLINDER SEALS FROM TRIPLE CHAMBERED TOMB WITH IMPRESSIONS

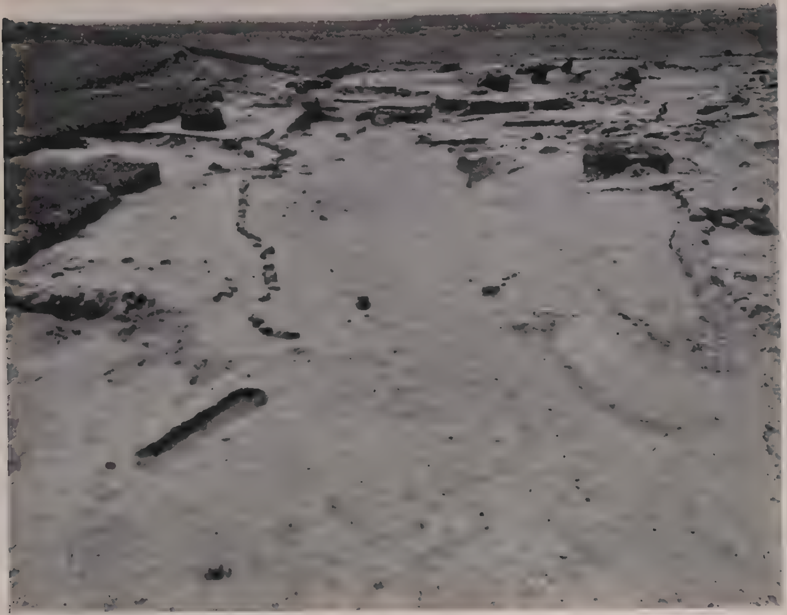


FIG. 1. LATE JUDAEAN ROAD SURFACE: LOOKING WESTWARD DOWN TO INNER CITY GATE

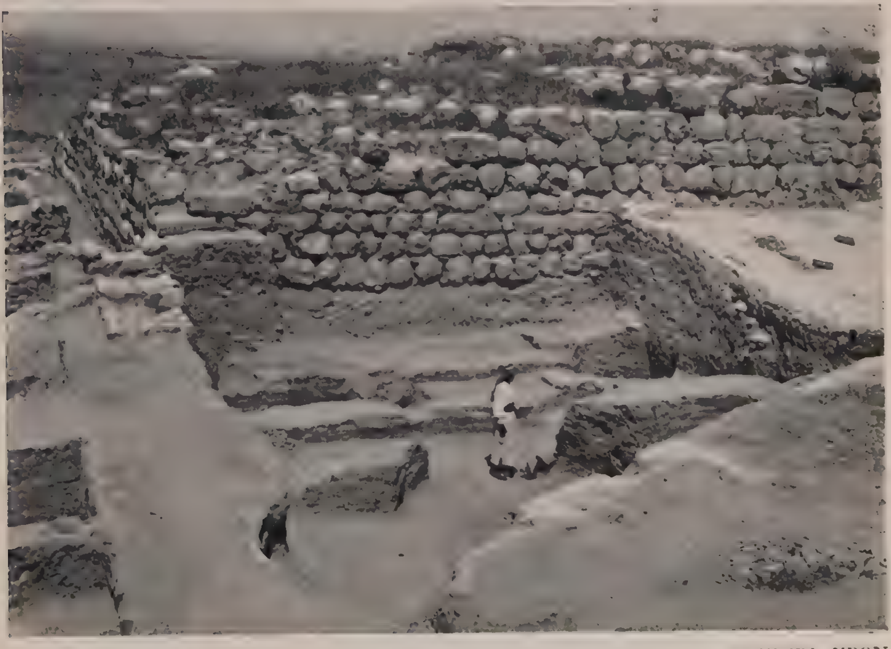


FIG. 2. S.E. CORNER OF PALACE-FORT, SHOWING FOUNDATION COURSES UPON LATE BRONZE AGE DEBRIS, AND BRICK WALLS OF STORE CHAMBERS BELOW. RIGHT: LEVEL OF LIME-SURFACED COURTYARD, CUT INTO BY PERSIAN GRAIN PITS, REMAINS OF ONE IN CENTRE FOREGROUND

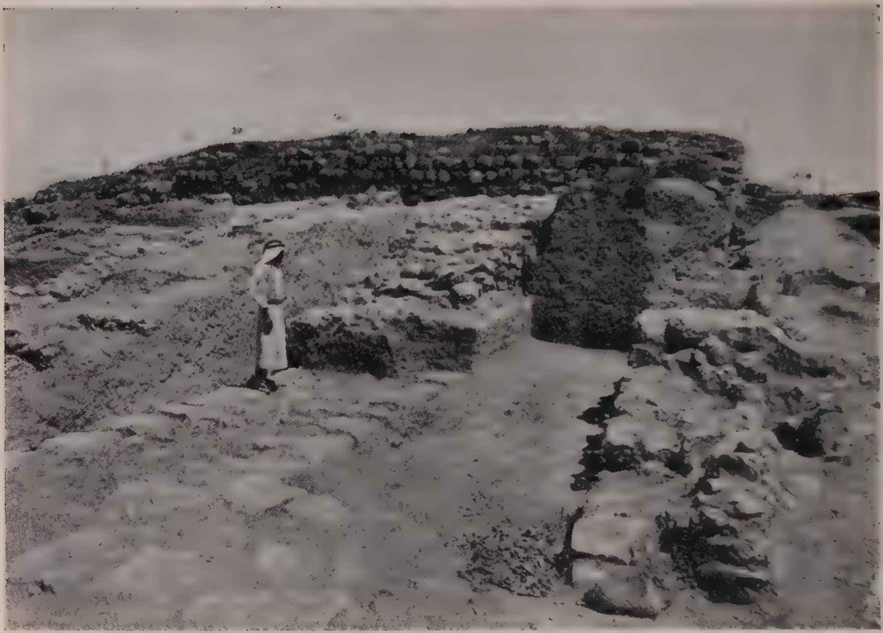


FIG. 1. S.E. CORNER OF PALACE-FORT, SHOWING HEAVY STONE FOUNDATIONS OF GOVERNMENT BUILDING, INTO WHICH LATE BRONZE AGE DEBRIS HAD BEEN THROWN TO RAISE FLOOR TO LEVEL OF PALACE COURTYARD

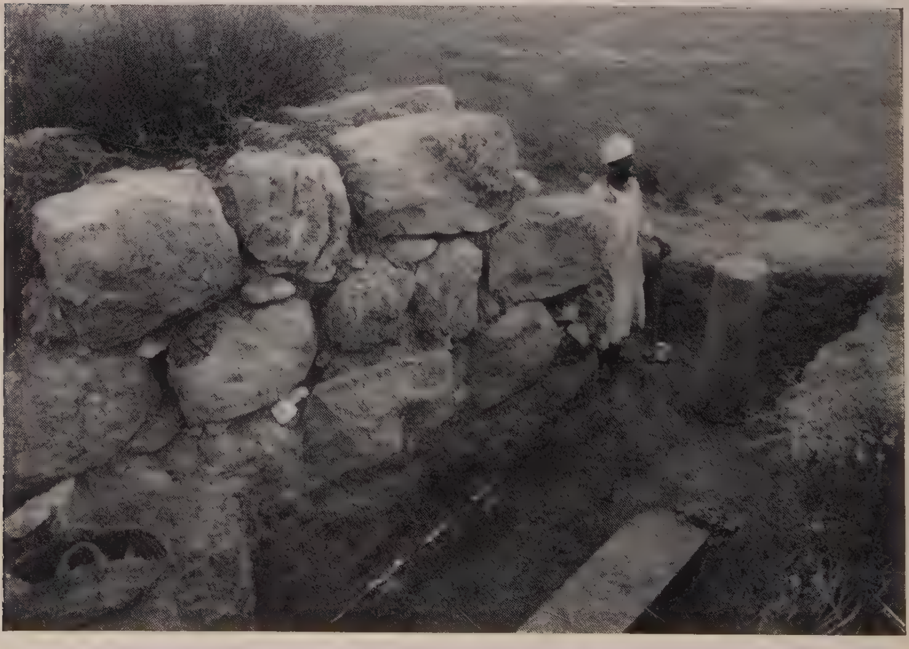
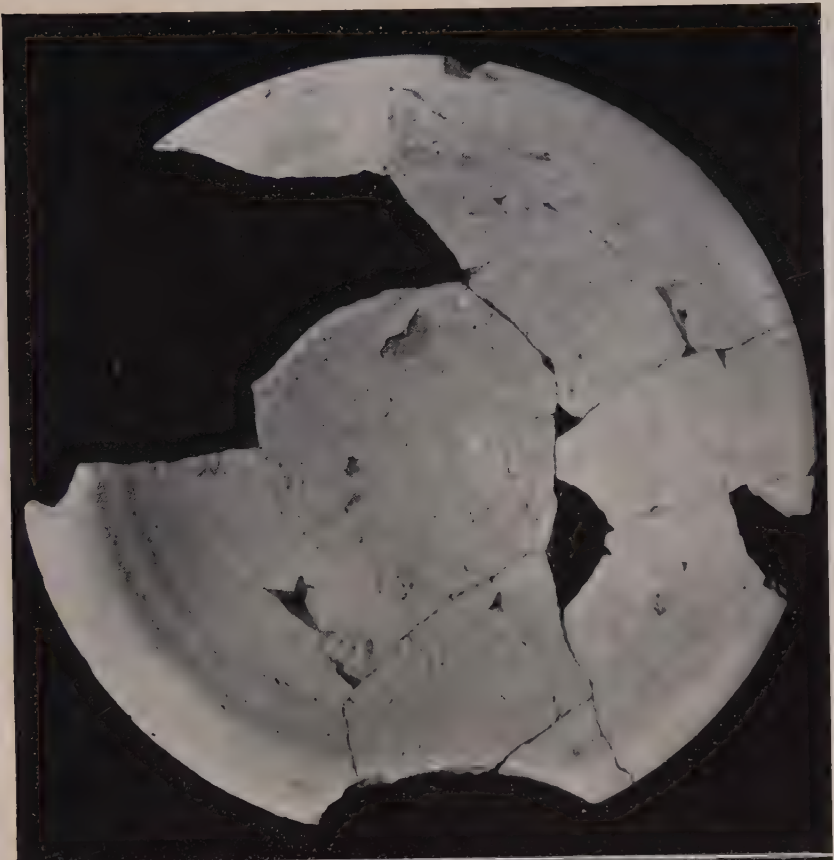


FIG. 2. N.W. CORNER OF PALACE-FORT, SHOWING BLACK ASH BED AND WELL-DRESSED MASONRY OF THE LATE BRONZE AGE CITY UNDERLYING EARLY IRON AGE FOUNDATION COURSES



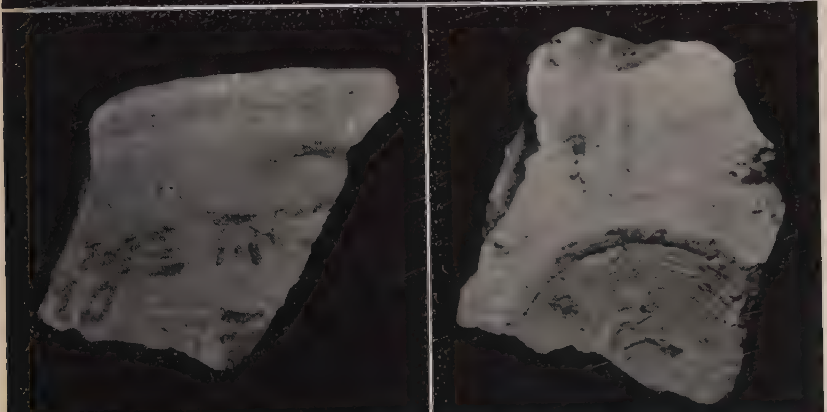


FIG. 1. INSIDE OF POTTERY BOWL, INSCRIBED IN EGYPTIAN HIERATIC
FIGS. 2 AND 3. FRAGMENTS OF POTTERY BOWLS OF LOCAL WARE, SIMILARLY INSCRIBED

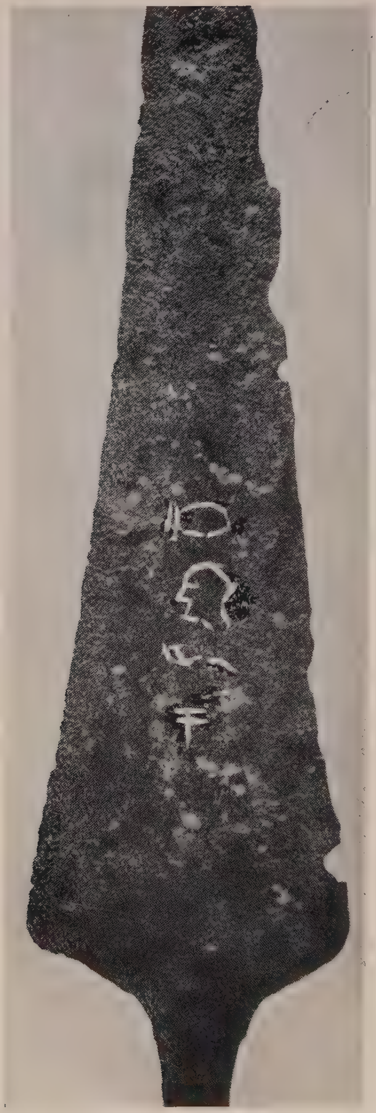


FIG. 1

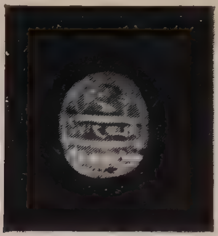
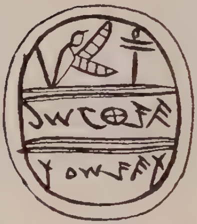


FIG. 2



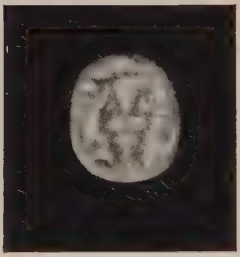


FIG. 3

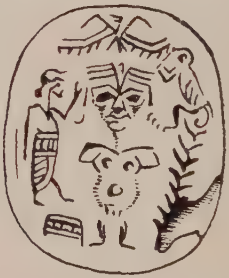


FIG. 1. BRONZE DAGGER OF HYKSOS PERIOD (CIRCA 1600 B.C.) BEARING INCISED INSCRIPTION IN PICTOGRAPHIC CHARACTERS

FIG. 2. SEAL IN BANDED QUARTZ INSCRIBED "FOR SHIFATYAHU ASYAHU"

FIG. 3. SEAL IN PINK LIMESTONE WITH FIGURE OF THE MOTHER-GODDESS ASHTORETH. ON RIGHT, A MONKEY SEATED ON THE SACRED TREE. LEFT, A MAN STANDS ON A STOOL WITH ARM RAISED IN SUPPLICATION. ABOVE: A BIRD (EAGLE) WITH OUTSTRETCHED WINGS. A TYPE OF SEAL UNUSUAL IN THE SOUTH OF PALESTINE

continue the difficult task confronting the geological section's work at Bethlehem. We also have to thank again the staff of the Wellcome Research Institution, who have so kindly made it possible for our Exhibition to be arranged in the adjoining hall of this building. Captain Johnston-Saint, with Mr. Dean and Mr. Port have given us unstinted help in all the details.

NOTES ON THE BEDOUIN TRIBES OF BEERSHEBA DISTRICT

By S. Hillelson

The following notes are derived from an Arabic work entitled *A History of Beersheba and the Tribes thereof* (*Ta'rīkh Bīr al-Saba' wa qabā'ilihā*) by 'Ārif al-'Ārif, published at Jerusalem in 1934. From the point of view of the European reader the different sections of the book are of unequal value for on matters connected with ancient history and archaeology the author can hardly claim to speak with authority, and the chapters devoted to these subjects are of little interest. As Kaimmakām of Beersheba, however, he has had unusual opportunities for studying the life and the history of the Bedouin tribes, and the information he gives us is of distinct value ; his study of Bedouin law and customs (which fills a second volume) forms a useful supplement to the treatises of Père Jaussen and Austin Kennett, even if it does not break new ground : the chapters, however, which we have selected for translation, contain information which is not easily accessible elsewhere. It seemed inadvisable to attempt a full translation, partly for reasons of space, and partly because a good deal of the text can be dispensed with as being of secondary interest. The translator has condensed the text as far as possible, and he has omitted lists of tribal camping-places, and of unimportant sub-clans and families, and references to individual shaykhs of sections and sub-sections. It should be noted that the original contains many illustrations, chiefly photographs of tribal notables. The section here reproduced in abridged form corresponds to Chapter Three of the original which occupies pp. 77–159 of the Arabic text : it is intended in future issues of the Palestine Exploration Quarterly to deal in a similar manner with the succeeding chapter, which contains an account of tribal wars related in a manner reminiscent of the " Days " of the ancient Arabs.

I

THE TARĀBĪN

The Tarābīn are the most important tribe both as regards numbers and extent of territory: they are also called ʻIyāl Ṣaldam, the latter term being used more particularly as a gathering-cry.

Researches amongst the Arabs themselves and in other quarters have failed to produce any reliable information on the subject of their origin and the history of their migration to Palestine. The traditions which are contradictory and fragmentary may be summarized as follows:

The most prevalent opinion amongst the Tarābīn elders is that their ancestor ʻAṭīya belonged to the tribe of Quraysh and dwelt at a place called Turba to the east of Mecca, the name of the tribe being derived from Turba.[1] It is to be noted that one of the Tarābīn sections, the Nijmāt al-Ṣāniʻ, are sometimes called Baghūm, and that there is a Baghūm tribe in the Ḥijāz at the present day.

The name ʻIyāl Ṣaldam is explained by a tradition to the effect that ʻAṭīya married a Christian woman called Ṣaldam: according to some she was an English tourist who had lost her way in the desert.

Another tradition which, however, finds little support by the tribesmen, alleges that Ṣaldam and not ʻAṭīya is the tribal ancestor: this Ṣaldam is supposed to have been an Englishman who embraced Islam in the time of the Caliph ʻUmar (sic). Having reason to fear the Caliph's anger on account of some fault committed by him he took to flight: later the Caliph desired to take him back into favour, but the messenger sent to summon him to court found him dead.

ʻAṭīya is said to have migrated to the Sinai Peninsula at a date given vaguely as 600 years ago. Together with his two sons Nijm and Ḥasbal he was buried on a hill called al-Sharaf near Suez: the graves are still visited by the Sinai Arabs.

The sons of ʻAṭīya were five in number: Musāʻid ancestor of the Quṣār; Ḥasbal ancestor of the Ḥasābila; Nabʻa ancestor of the Naba‘āt; Ṣarī‘ ancestor of the Ṣarāyi‘a; and Nijm ancestor of the Nijmāt and Ghawālī. With the first four sections we are not here concerned, as they belong to Sinai.

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[1] Turba and the Baghūm are mentioned by Doughty in *Arabia Deserta.*

Nijm had two sons, and it is to these two that all the Nijmāt and Ghawālī (in other words the Tarābīn of Beersheba as distinct from those of Sinai) trace their descent.

The origin of name " Ghawālī " is related in the following tradition:

One of the two sons of Nijm having been slain by a man of the Naba‘āt called Abū Ghāliya, the ensuing blood-feud was eventually settled by the marriage of the slayer's two daughters, Ghāliya and Zāri‘a, to the two sons of the victim: Ghāliya thus became the ancestress of the Ghawālī, while Zāri‘a is commemorated in the name Mazāri‘a applied to the section also known as Nijmāt al-Ṣani‘. The remaining sections of the Nijmāt, Ṣūfa, Sanā'ima, ‘Awā'isha, Dabāriyīn, &c., are descended from the other son of Nijm.

Although the Mazāri‘a are more closely related to the Ghawālī than to the Ṣūfa, yet they are counted as belonging to the Nijmāt and in tribal wars they fight side by side with the Ṣūfa: the reason for this is to be sought in dissensions due to the distribution of " khāwa " levied on villagers.

The Nijmāt are regarded as the most important section of the Tarābīn: they claim that in the old days they led the whole tribe in battle, and that they played the leading part in the wars between the Tarābīn and other tribes.

Formerly all the Nijmāt acknowledged the authority of one shaykh: at present each sub-section has its own shaykh.

The leading clan of the Nijmāt, and that which has produced their most prominent men, are the Ṣūfa. Ḥammād Pasha al-Ṣūfī bore the title of *shaykh al-mashā'ikh* and he led all the Tarābīn in their war against the Tiyāha; the Turks entrusted to him the command of a Bedouin force of 1,500 men which took part in the operations on the Suez Canal in the Great War. He also held the post of head of the Beersheba municipality under the Turkish administration, though at times he was out of favour and even in prison. He died five years after the British occupation, and he is still spoken of by the tribesmen as one of their great men.

The brands[1] used by the Nijmāt are the *ḥanak*, the *khuṭām*, and the *muṭraq* ; some of them also use the *qinā*ʻ and the *shi*ʻ*ba*.

The Ghawālī

They are divided into nine sub-sections : Satūt ; Ḥaṣīnāt ; Shalāhiba ; Khatālīn ; Bukūr ; ʻUmarāt ; Zarīʻiyīn ; ʻUmūr ; and Nabaʻāt. The Wiḥeydāt and Ḥasanāt, though of different origin, are nowadays also reckoned as belonging to the Ghawālī. The brands used by them are the *khidma* and the *muṭraq*.

The most prominent section are the Satūt, who of old provided the paramount shaykhs of the section. The name is derived from the nickname Abū Sitta (the father of six) conferred on one Ḥamad Abū Dahshān who on all journeys and raiding-expeditions was accompanied by six slaves. The Mullāk, a family of the Banī Ṣaqr, claim the Satūt as their own kin, and state that they are not genuine Ghawālī at all. According to Shaykh Ḥusayn Abū Dahshān this claim is not without foundation ; for the name Ṣaqr was frequently borne by men of his house, and there was undoubtedly a connection between the Satūt and the Ṣuqūr.

In A.H. 1290 when Ṣaqr ibn Dahshān Abū Sitta was shaykh, the Satūt were driven from their homes on account of a blood-feud with the Ṣūfa, for which reason they had to seek the protection first of the ʻAllāmāt, then of the Hazīl ; thereafter they were involved in the wars between the Tarābīn and the Tiyāha, and though of Tarābīn origin, they fought on the side of the Tiyāha. This attitude was resented by the other Tarābīn sections, who thereupon urged their ʻAqīd Ḥammād al-Ṣūfī to arrange for the return of the Satūt to their original *dār* : in order to induce them to return he had to agree to make them an annual payment of money which has continued ever since. The Satūt now returned to their ancient homes, but during their absence the shaykhship of the Ghawālī had passed to the Zarīʻiyīn who held it down to the time of the Great War. The Satūt in those days had a great name amongst the tribes, and their ʻĀqīd Ṣaqr won renown in the Tiyāha-Tarābīn war; he also raided the Maʻāza of Shaykh Ḥasaballāh as far away as Upper Egypt, and gained victories over the Ayda and Faqīr of Madā'in Ṣāliḥ. In Egypt Ṣaqr obtained a grant of 500 feddāns of land in the Fāqūs district from the Khedive Ismaʻīl, and the descendants of his son Ḥammād still dwell there. On the other hand he was in bad odour with the Turks, who exiled him to Jerusalem together with other shaykhs of the Tarābīn and Tiyāha, and he died in exile. His son Dahshān also took a prominent part in the tribal wars, and distinguished himself greatly in the Fight of Ramaḍān betweeen the Tarābīn and the ʻAzāzma; but having, on this account, drawn upon himself the wrath of the Turkish government he migrated with a number of tribesmen to Transjordania, where he attached himself to the Banī Ṣakhr and fought on their side against the Ruwala thus enabling the Banī Ṣakhr to gain the victory.

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[1] ʻĀrif Bey, as will be seen, is careful in most cases to note the *wasm* or brand used by each tribe and section for the purpose of identifying their animals. In the Arabic text these brands are sometimes shown by means of diagrams which, however, are not exact representations of the marks used, and in some cases the translator was left in some doubt as to their precise significance.

In the course of these events, as has been said, the shaykhship of the Ghawālī had passed to the Zarīʻiyin, and there were three successive shaykhs of this house: Manṣūr ibn Naṣr; ʻAwda; and Salīm. The last-named had to flee from the wrath of the Turks in 1915, and he was succeeded by ʻAbd al-Karīm who died in 1931. His death was followed by an interregnum during which several parties contended for the shaykhship, until the choice fell on Muḥammad Abū Zarīʻ. Of other sections ʻĀrif Bey has very little to say: the Khatālīn, we are told, separated from the Satūt a few generations ago; the ʻUmūr, who made themselves independent of the Zarīʻiyīn in 1931, are said to be of Rabīʻa origin, and a connection may perhaps be traced with the Egyptian village of ʻUmūr in Sohag district. The ʻAmarāt, who are cultivators, are said to hail from Maʻan.

THE ḤASANĀT

By descent the Ḥasanāt are connected with the Liyātha of Wādī Mūsa, although they are now reckoned to belong to the Ghawālī: ʻĀrif records the following saying of a Liyātha elder: " The Ḥasanāt are of us, and we are of them; but they separated from us on account of famine and plague in the old days."

An account of the Liyātha is included in Dr. Tawfīq Kanʻān's *Studies in the Topography and Folklore of Petra* published in 1930 : from this paper the following notes on the Liyātha are largely derived :

According to Ibn Faḍlallāh al-ʻUmarī, the fourteenth century author of the *Masālik al-Abṣār*, the Liyātha are a branch of the Banū Layth, who in their turn are descended from the Kināna. This statement is confirmed by Maqrīzī and al-Qalqashandī. A section of the tribe is said to be living in the Akhmīm district of Upper Egypt. There is, however, another theory, which connects the Liyātha with a Wādī al-Layth in the Yemen.

The Liyātha originally were subjects of the Ḥijāz : but they were driven out by the Wahhābīs after their conquest of the Ḥijāz and passed under the authority of Transjordania : in 1926 they rose against the government, but they have been at peace since.

The Liyātha of Wādī Mūsa are cultivators but dwell in tents like the Bedū ; they are divided into the following four sections : Banū ʻAṭā (thirty tents) ; Shurūr (seventy-three tents) ; ʻUbaydiyīn (seventy tents) ; ʻAlāyā (forty-five tents). In the old days they were the guardians of Wādī Mūsa, but recently they have fallen on evil days, so much so that they were obliged to sell their arms in order to obtain food.

They have many saints, of whom the most famous is called al-Ḥasanī, who is the ancestor of the Ḥasanāt (a family of the ʻUbaydiyīn): his grave is marked by a half-ruined shrine consisting of a simple chamber, which the tribesmen visit on many occasions and where they recite the Fātiḥa ; they also take oaths on the shrine, and they believe that anyone who swears falsely, will meet with disaster within three days.

The Ḥasanāt of Beersheba number about 500 : their shaykh is Mūsa ibn Sālim ibn Salmān Abū Miʻayliq (a name which leads ʻArif Bey to trace a connection with the biblical Abimelech !) They do not accept the theory of a connection of their tribe with the Liyātha ; on the other hand their brand—the *khidma*—is identical with that of the Liyātha of Transjordania.

THE WIḤEYDĀT

Some of the Wiḥeydāt claim Ḥusaynī descent, but the generally accepted theory is that they originally come from

Jebel al-Sherāh in Transjordania, and that they are not of Tarābīn lineage at all. Iskandar Ma'lūf, however, informed our author of a different tradition which states that Nijm the ancestor of the Tarābīn-Nijmāt arrived in Sinai together with a certain al-Wiḥeydī who was a descendant of Ḥasan ; Nijm and al-Wiḥeydī each married a daughter of a man of the Banī Wāṣil, and thus they became the ancestors of their respective tribes.

The Wiḥeydāt are found near Gaza, where they are at constant enmity with their neighbours the Ḥasanāt. Their brand is the *miḥjan.*

THE MAḤĀFIZA

The Maḥāfiza nowadays are subject to the Nijmāt al-Ṣāni', but their tradition is that they were originally Sawālima, i.e. a branch of the " 'Arab Abī Kushk " of Jaffa district : their ancestors 'Alī and Ḥasan migrated to Egypt on account of a murder in which they were involved, and settled in Ṣaliḥīya where they flourished greatly ; they left Egypt again at the time of the opening of the Suez Canal and, under the leadership of Maḥfūz, joined the Tiyāha. Maḥfūz had three sons, Isma'īl, Sālim, and Salīm, the last of whom left no offspring. In due course they quarrelled with the Tiyāha, and a dispute arose between the Tarābīn and the Tiyāha, each of the two claiming the Maḥāfiza as their subjects. A serious tribal war was averted by an agreement, made under the auspices of Isma'īl Abū Khatla, which assigned one section of the Maḥāfiza to the Tarābīn and one to the 'Azāzma : accordingly the section of Isma'īl lives with the former, and the section of Sālim with the latter. They have no official shaykh of their own.

THE JARĀWĪN

These people trace their descent to a Ḥijāz tribe called Banī Jarī and allege in proof of their contention that they use the Banī Jarī brand—the *zinād.* Their ancestor Jarwān came to Sinai from the Ḥijāz as a refugee from blood-guilt, and took up his abode near Jebel al-Ḥalāl. The Jarāwīn strongly repudiate the statement made by others, that they are descended from a fellāḥ named Kalūb.

The story goes that during a feud between the Tarābīn and the 'Ayā'ida a peace-meeting was held in Jarwān's house: both parties were so much impressed by his wisdom that they desired him as an ally (*ḥalīf*); Jarwān, however, refused to ally himself to either; yet he consented to become a friend (*alīf*) of the Tarābīn, and on their invitation he migrated to the district of Beersheba. There he made his home, and at a place called Ṣalīb he dug a storage-tank (*birka*) still known by his name. He married a local woman, and from this marriage the Jarāwīn are descended.

Later a feud broke out between them and the Tarābīn on account of the latter having slain a man of the Jarāwīn. The Jarāwīn being weak in numbers migrated to Shamsāniyāt where a woman of theirs, called Umm Ghalyūn, dug a "*harāba*" still called after her to this day.

The feud went on for some time and there were raids and murders: at last peace was made on the following terms: (1) that there should be no *jīra* between the tribes, i.e. that no person should be prevented from entering the land of the other tribe; (2) that no women of the Jarāwīn should be abducted; (3) *lā yajūz wasāqat amwāl al-Jārawīn qabl al-tašhīd*;[1] (4) that for a slain man of the Jarāwīn fourfold bloodwit should be paid. The terms were guaranteed on the Tarābīn side by Abū Bakra of the Ghawālī; Abū 'Ādira of the Nijmāt; Abū Jireybī' of the Quṣār; and al-Dalaḥ of the Naba'āt; all this happened twenty years before Napoleon's campaign at Acre.

Notwithstanding the terms of the agreement the Jarāwīn remained dependent on the Tarābīn shaykhs, until they were given a shaykh of their own by Ra'ūf Pasha, a mutaṣarrif of Jerusalem. After the British occupation the Jarāwīn were split up into three sections each under a separate shaykh.

II

THE 'AZĀZMA

The tribesmen's own account of their origin is "The 'Azāzma are descended from Quḍā'a, and the Quḍā'a are of the lineage of Quraysh." The Amīr Shakīb Arslān, in a private communication to 'Ārif Bey states that they belong to the

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[1] I am uncertain how this sentence should be translated.—S.H.

Sharārāt amongst whom there is a section of the same name; the name Āl ʻAzzām is also borne by folk living at Gīzah in Egypt, and there are Banī ʻAzzām amongst the Druzes of the Ḥaurān. The Sharārāt, in their turn, are descended from the Banī Kalb who are of pure Qaḥtānite stock.

According to Alois Musil (Arabia Petraea) the ʻAzāzma are descended from the ancient Maʻāza. The following account of ʻAzzām, the tribal ancestor, was given to ʻĀrif Effendi by a shaykh of the tribe: When he was still a babe his mother was wandering about in the desert, overcome by heat and thirst. Unable to find water she placed the child on the ground in order to go forth alone in search of water: as the child was kicking the ground with his feet water spouted forth, and both mother and child were saved. She then took him to ʻAynūn and Wāqiyān in the Ḥijāz where the child grew up and married a girl who bore six children, Sarḥān, Muḥammad, Farḥān, Saʻīda, Ashtīya, and Naṣra. The different sections of the tribe trace their descent to the children of ʻAzzām, and they migrated to Sinai and Southern Palestine.

The ʻAzāzma fought with the Tarābīn and the Tiyāha and, being weak in horsemen, they migrated to al-ʻArīsh: they nevertheless carried on the war against their adversaries and, in the end, were able to return to their original home in Shallāl, Buḥeyrāt, &c. Further wars with the Tarābīn compelled them to wander in inhospitable deserts, and this went on until the Turks established themselves in the land, and the modern town of Beersheba was founded.

The Muḥammadiyīn, an important section of the tribe, claim to be descended from one Ḥamad ibn Sulaymān of the Ḥarb tribe, who it is said, left his tribe and wandered to Wajh and thence to Sharma and ʻAynūn, and in the latter place he planted date-trees. One of Ḥamad's sons named Mūsa slew a man of the Ḥarīṣāt and, as men do in such a case, wandered about with his brothers in the ʻArīsh desert where he fell in with a party of the Tarābīn, whilst watering their herds at a storage basin. A quarrel ensued which nearly led to open fight, but the scouts sent by the Tarābīn to spy out the strength of their opponents, reported that it would be wiser to make peace. Accordingly the tribes came together and concluded an alliance which was to endure "until the sea dries up and hair grows on a man's palm" : thereafter certain sections of the 'Azāzma fought on the side of the Tarābīn against their various enemies, and they remained allies until a short time before the foundation of Beersheba : then there was war between them and the Tarābīn on account of the lands.

The 'Azāzma at the present time are divided into ten subsections. Their brand is the *bāb*, placed on the right flank, and for camels the *'āmūd* : some of them, such as the Sarāḥīn section use the *amārāt*, which is a slight variation of the *bāb*.

They number about 10,000 : they are of dark complexion, and conspicuous for honesty and patient bearing in adversity, and they will do their utmost for the guest and the *b*. Their women herd the flocks, and they are much addicted to the abduction of women. Scarcity of grazing compels them to lead a wandering life more than the other tribes. The area over which they wander is spacious, but affords little opportunity for cultivation : yet they grow a little wheat and barley, and a few of them cultivate millet and water-melons.

They are on bad terms with the Ma'āza[1] and the Ṣukhūr of Transjordania ; since 1930, however, there has been peace, and a formal peace-treaty was signed in the author's presence in Beersheba. In the old days they were allies of the Tarābīn and fought on their side in tribal wars ; but after the incident known as the War of Zāri' they quarrelled over certain lands and for some years they were at war.

THE RIYĀṬĪYA

These people are of Syrian origin, but their traditions about their ancient home are not very exact : they state that they came to Beersheba in the time of Ibrāhīm Pasha, and they now live amongst the 'Azāzma.

The grandfather of their present shaykh, 'Abd al-Qādir, bore the nickname al-Jundī (the soldier) because he carried mails for the army : his family-name was Saḥlūl, and the name Riyāṭī (dung-man) is of recent origin ; the following anecdote is told about it : during a quarrel between a man of the Tarābīn and a man of Tiyāha, the former called his opponent a "man of dung," and the insult led to the drawing of swords, but 'Abd al-Qādir al-Jundī who happened to be present pacified the angry man of the Tiyāha by exclaiming: "let me be the Riyāṭī instead of you!" The nickname, however, stuck to his descendants.

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[1] Notwithstanding this feud, there is a tradition that the 'Azāzma are of Ma'āza origin : this, however, does not apply to the Sarāḥīn section, who are of different lineage and may be connected with Wādī Sarḥān.

This 'Abd al-Qādir at one time lived amongst the Ni'aymāt section of the Tarābīn, where he married a wife and had four sons and six daughters: but when the Tarābīn abducted his eldest daughter, he divorced his wife and migrated to Egypt, where he married again.

The Riyāṭīya number some 200 souls: they use the *shi'ba* and *muṭraq* combined as a camel-brand, and the *shi'ba* alone for sheep and goats; they are cultivators, and some of them trade in sheep and jewelry, and in Bedouin clothing: they do not, however, use shops, but carry on their trade in Bedouin tents.

They are intelligent folk, and many of them are literate like townspeople. They do not marry a girl without her consent, and they employ for the marriage ceremony a man licensed for the purpose by the Sharī'a judge. Both men and women of the tribe are ardent Moslems: a tribesman who neglects the rite of prayer is held in low esteem, and may even be ejected from the tribe.

SOME OBJECTS FROM TRANSJORDAN

By Lankester Harding

The objects illustrated in this article are the property of officers of the Arab Legion; the two figurines, head and lamps, Figs. 1–5 and 11 belong to Abdallah Bey Rihani of Tafileh, the figurine, Pl. X, Fig. 8, belongs to Bahjet Bey of Kerak, and the seal is owned by Khalyl Bey Zaza of Amman. To them my best thanks are due for their permission to photograph and (?) the objects. The figurine, Pl. X, Fig. 9, is the property of Department of Antiquities, Transjordan.

The two figurines, head of a third, multiple lamp, and two ordinary lamps, were found by fellahin in the course of clearing out a spring at Ain Jenin, about two kilometres east of Buseirah, south-west of Tafileh. There is a small Khirbeh near the spring, called Khirbet Jenin or Kedhabeh, but there are no indications of any remains earlier than Nabataean on the site,[1] so the objects must be connected with Buseirah (identified with the Biblical Bosrah), the only Iron Age site in the immediate vicinity. From the form of the lamps, the group would appear to date to the eighth or ninth century B.C., and may be part of an offering to the deity of the spring.

The material of the first figurine, Pl. IX, Figs. 1 and 2, is a rather coarse, gritty pottery, brown surface, black core, soft fired; there is no trace of any wash or slip. The body, head and lamp were made separately, all thrown on the wheel, and the modelling was done by adding lumps and strips of clay on to what was an ordinary lamp on a hollow stand. A quantity of very finely chopped grass or straw has been added to the clay with which the modelling is done: no trace of this straw is seen in the black core of the main body. The face is strongly masculine in character, but the presence of breasts leaves no doubt as to the sex intended. The method of indicating the hair is curious, and the meaning of the row of punched holes across the forehead is obscure. The spout of the lamp shows no signs of burning. There is a fragment of a similar head with a lamp on it from Gezer, now in the Palestine Archaeological Museum.

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[1] *Annual of the American Schools of Oriental Research*, XIV, 78.

The second figurine, Pl. IX, Figs. 4 and 5, is made of rough, very gritty pottery, hard fired, red all through : no traces of slip or wash. The body is oval in shape, having been thrown on the wheel and flattened slightly ; the head is hollow, and modelled separately (not thrown), and pegged into the body. An unusual feature is the very heavy ridge above the eyes. There are clear indications on the body that the arms originally crossed in front, and may possibly have held a round object, as do the other examples.

The head of the third figurine, Pl. X, Figs. 6 and 7, is made of a coarse, slight gritty pottery, red surface, black core, very soft fired. Remains of a lamp on top of the head can be seen. A collar decorated with a double row of punched holes is shown round the front of the neck and another group of such holes can be seen on the left cheek. The hair is indicated in the same way as on the first example, except that the strands are placed closer together. This head is solid, and was pegged into the body in the same way as no. 2.

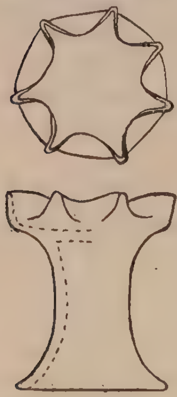
Fig. 11. Scale 1 : 5

The multiple lamp on stand, Fig. 11, is made of a gritty grey paste with a black core, while one of the lamps is of soft red, the other of soft grey paste. The form is exactly the same as that of lamps of the same period found in Palestine.

The fourth figurine, Pl. X, Fig. 8, comes from somewhere in the neighbourhood of Kerak, the exact locality being unknown. It is made of a fairly soft, smooth paste, red surface, black core, with a haematite wash, and burnished or polished surface. In contrast to the preceding examples, this figure is solid, and has been cast in a mould.[1] Three lines are indicated round the waist, as though to represent some garment or belt. The whole style of this figure is quite different from the Buseirah specimens, and only resembles them in that a round object is held in the hands in front of the body. This

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[1] Moulds for similar figurines are illustrated in Petrie, Gerar, pl. XXXVI, nos. 6 and 19.

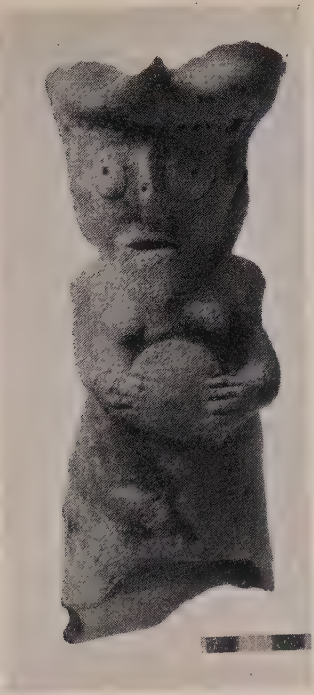


FIG. 1

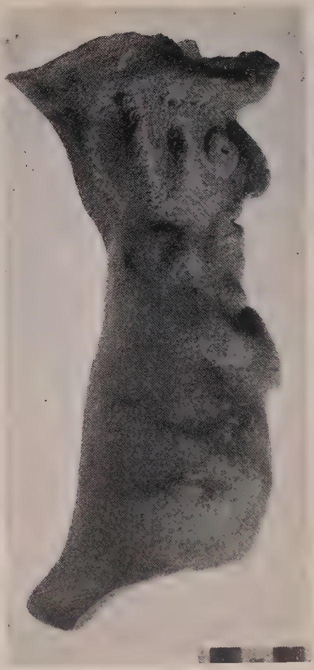


FIG. 2

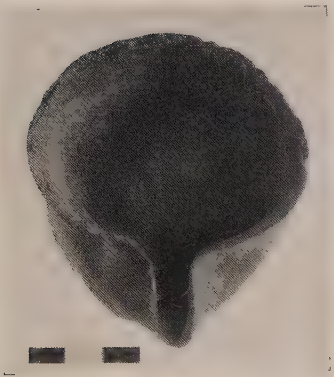


FIG. 3

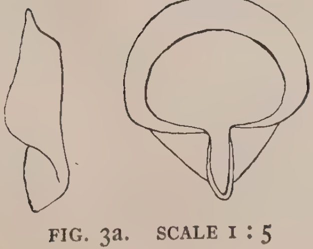


FIG. 3a. SCALE 1 : 5

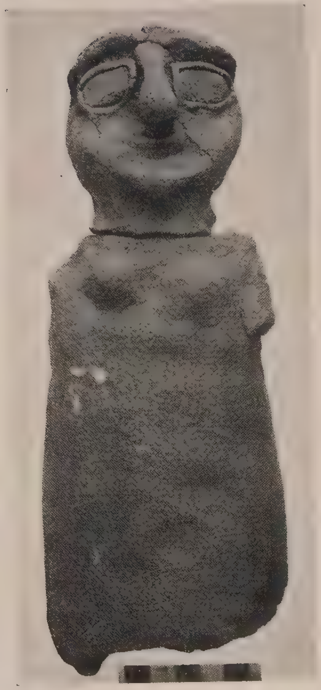


FIG. 4

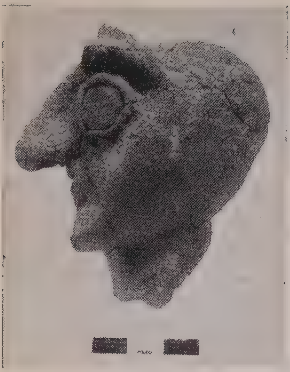


FIG. 5

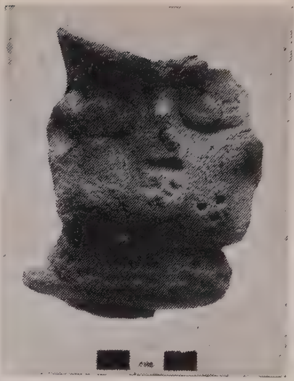


FIG. 6

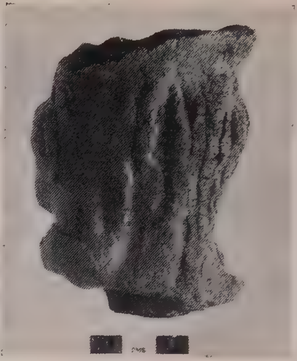


FIG. 7

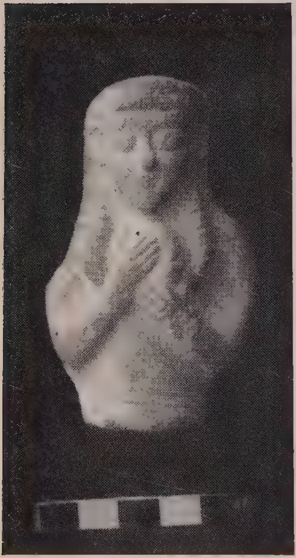


FIG. 8

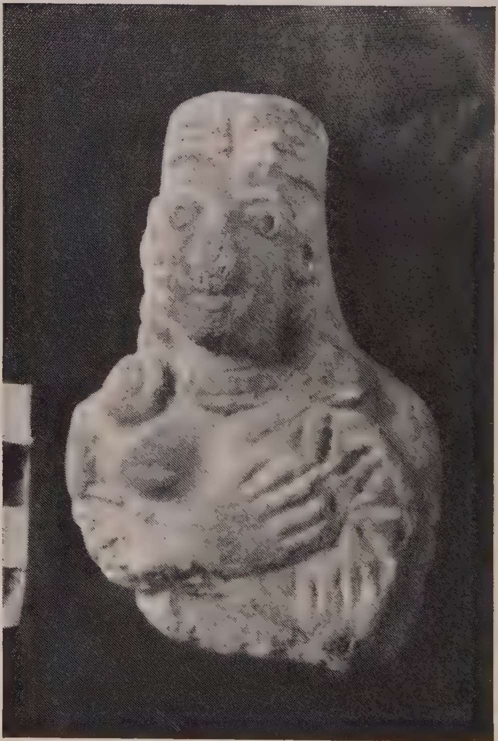


FIG. 9

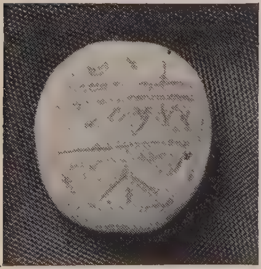


FIG. 10

figure may perhaps be dated slightly later than the others, possibly seventh or late eighth century B.C.

The provenance of the fifth figurine, Pl. X, Fig. 9, is unknown, and has been in the Department of Antiquities for some years. It is made of a soft buff pottery, black core, soft fired, and shows clear traces of a pinkish slip. Like no. 4, it is solid, and has been cast in a mould. The hair is parted in the middle, and a twisted lock, ending in a curl, hangs down either shoulder. A collar or necklace is shown round the neck, and the round object (held on the left side instead of in the centre as is more usual), is decorated with incised lines. In the collar and treatment of the hair it has affinities with both the Buseirah and Kerak figures, but perhaps in date it should go with the latter.

The seal, Pl. X, Figs. 10 and 12, was acquired by Khalyl Bey while in Tafileh, so may, perhaps, also come from Buseirah, as that was the most important Iron Age site in the neighbourhood. It is of the usual ovoid form, 13/16 × 11/16 in. (20 × 18 mm.), and the material is a rather opaque chalcedony with a brown patch on the back. The face is divided into three registers, the upper and lower containing decorative motifs, while the name is in the centre. This reads שמעאל, Shema-al ; a faint trace of the crook of the ל is visible in the break which occurs at this point. The name in this form does not seem to be recorded anywhere, שמעיהו and ישמעאל being, however, fairly common. The usual prefix ל, " belonging to," is omitted. On general stylistic grounds it could be dated to the ninth century B.C.

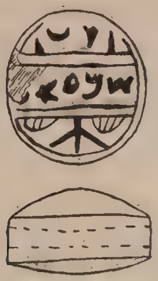


Fig. 12. Scale 1 : 1

NOTE ON NEW TYPE OF Æ COIN FROM PETRA

By A. S. Kirkbride

During the period of five years from 1931 to 1936, thirty-seven specimens of a new type of bronze coin have been found at or in the vicinity of Petra.

Attempts to secure specimens of these types from other parts of Transjordan were unsuccessful apart from one specimen from Kerak, but one or two copies of coins of a similar order are reported to have been discovered near Gaza.

The coins are thick, slightly concave and convex at the reverse and obverse respectively ; they are struck in a reddish copper which is inclined to flake. The average diameter is sixteen millimetres, the weights vary considerably. No traces of lettering are visible on any of the coins.

The obverse of eighteen of the coins is so ill preserved as to make the image practically untraceable ; of the balance, apart from minor differences, three main types are distinguishable. The first (fig. a), appears on eleven coins and consists of a male head with a clean-shaven face and wearing a conical helmet surmounted by a knob from which hangs a plume ; the hair is long and braided. Six other specimens show a larger head wearing a lower helmet on which the knob is set further back (fig. b). Two specimens show a helmet similar to type (a), but without the plume, and the individual tresses of hair of the head are not evident as in the other two types (fig. c).

On types (a) and (b) the plume is illustrated in precisely the same manner as the hair and it may well be, therefore, that the ornament of the helmet represents hair also.

The motif on the reverse of all thirty-seven specimens is the same, namely, a winged victory standing three-quarters left with the right hand extended apparently holding a wreath, although the last object is not entirely clear in any of the specimens found.

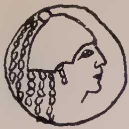


FIG. A

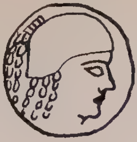


FIG. B

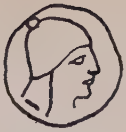
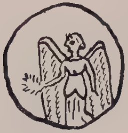


FIG. C

FIG. I



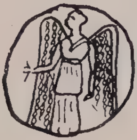
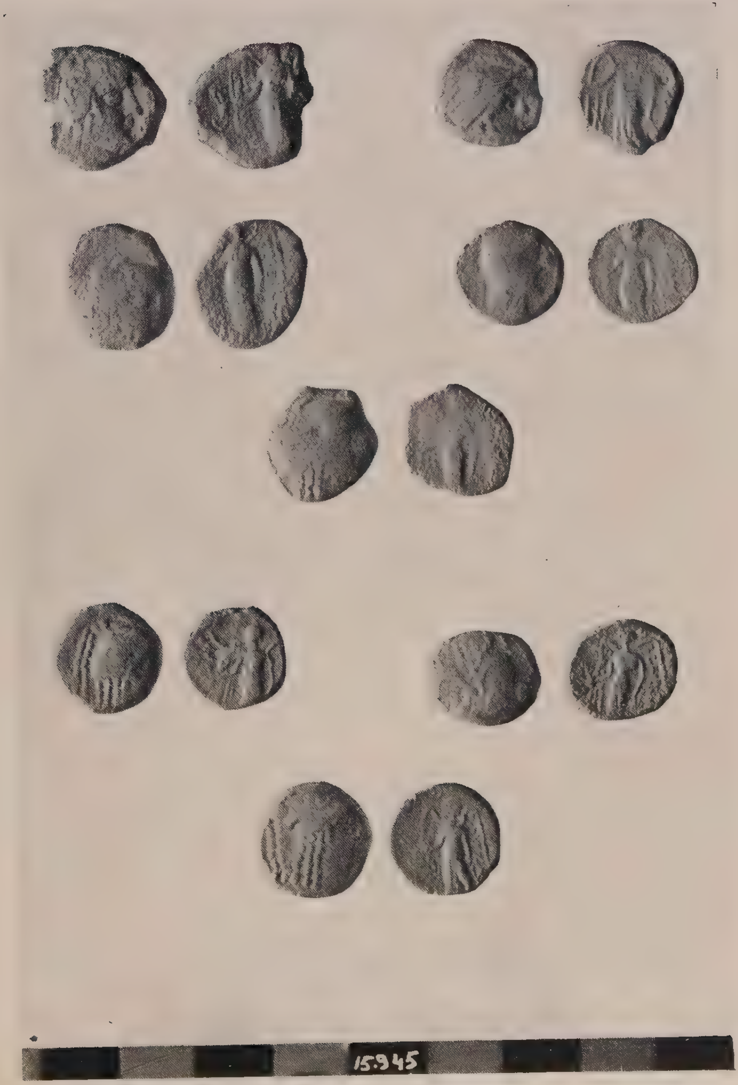


FIG. 2



The figure is bareheaded and wearing a long chiton ; the wings are half unfolded.

There are a number of minor variations, but two main types are evident ; on the first the feathers on the wings are indicated by slightly hachured lines (fig. i), whereas others bear feathers which are portrayed by lines of dots (fig. ii). It is to be noted that, on the coins on which the obverses were identifiable with a type, reverse type (i) appears with obverses types (a) and (c) and reverse type (ii) appears with obverse (b).

The provenance of these coins offers some justification for assuming that they are Nabatean and the fact that they are only found in the neighbourhood of Petra seems to indicate that they date from an early reign because the later Æ issues, those of Aretas IV, Malichus II and Rabbel II are commonly found in the northern districts of Transjordan over which Nabatean influence had, at the latter date, spread.

A further indication of Nabatean origin may be found in the long hair which appears also on the coins of the later kings of Nabatene ; see B.M.C. (Arabia, Mesopotamia, page 8).

There are fleeting similarities of type between these coins and those of the earlier Selucid issues and the conical helmet resembles in some respects the headdress on the Characene and Elymais bronzes of the first century B.C., and also that on the earlier AR of the Parthian kings.

This is not, however, strong evidence as to date and unfortunately none of these coins has been discovered in circumstances which point to the other known types, in association with which they were found, being contemporary ; the facts have always indicated the contrary to be the case.

As regards mintage any suggestion made must be pure conjecture.

The provenance from a restricted area may point to a mint at Petra, and if that was the case, a further assumption might be made, that the metal came from the copper smelteries which existed at Sabra, a few miles south of Petra, and around Feinan on the eastern edge of the Wadi Arabah. The fact that it was not highly refined (see above) is in favour of such a supposition.

The details of the drawings were reconstructed from those visible on the coins.

THE TECHNICAL QUESTIONS OF THE "HULEH PROBLEM"

By Dr. Eng. A. Werber (Haifa)

Consulting Engineer and Expert for Hydraulics

It is likely that in the near future the development of the plain of Huleh will be considered. As I have studied this problem for more than three years and have been occupied in irrigation work for twenty-five years I may be entitled to give a brief statement of facts.

Some preliminary works have been executed by the Palestine Land Development Co., Ltd., who is actually still the holder of the concession, and later by the Emica Company. The Huleh basin contains :

(a) in the area of concession		
cultivated territory	14,800	Dunam
marshy ,,	28,700	,,
sea	13,700	,,
(b) free territory	110,000	,,

The free territory is extensively cultivated, but yields only poor results. The area of the concession, with the exception of maize and papyri, is not cultivated at all. By drainage and irrigation about 70,000 to 80,000 Dunam could be redeemed, and by using peat for electrical energy 40,000 kilowatt could be produced yearly. Another activity could be the production of manure. In all attempts at cultivation a thorough drainage is a necessary condition. If peat should be produced in large quantities the trench, in conjunction with the sea, could be employed for irrigation. The water could be used for plains under 60–50 m sea level, taking advantage of gravitation, e.g., the Tiberias–Jordan, the Beisan and Esdraelon valleys would benefit by this scheme, including Jewish and Arab possessions. This plan would, after sacrificing 42,000 Dunam of bad soil, give the possibility of obtaining 260,000 Dunam for intensive cultivation.

Another possibility would be to drain the lake. The ground so opened to cultivation would, it is true, contain 63–85 per cent. chalk, so that it may be wiser to drop this plan. Various schemes arising out of this plan would always lead to a lowering of the level of the Jordan as well as to a widening and regulation of the river. In any case it is necessary to avoid the great danger of floods and therefore a canal ought to be built. It is economically possible to build dams, as well as a pumping arrangement. Without entering into technical details it can be said that the drainage must be arranged according to usage. But it may be added that a reservoir could be built in the neighbourhood of the springs of the Jordan, and thus bank up about 160 million cubic metres of water. This would simplify the problem of the Huleh territory. The water could be used for irrigating 320,000 Dunam and before it reaches that level, could produce about 40,000 h.p., that is to say a bigger h.p. than is now produced in the Jordan Valley.

It is beyond doubt that a unified treatment of the whole area is an essential feature of the plan as a whole. The scheme holds valuable advantages for the area in question, and a government contribution to the cost of the canalization is therefore advisable. The risk of malaria cannot be entirely overcome, as there will always remain the danger of infiltration of Anopheles from other territories. But by prophylactic precautions, adaptation of the people and a hygienic standard of living this peril can be greatly reduced. The most urgent need is to close the dangerous local swamps, which breed illness.

It is in the present situation difficult to give an estimate of the cost, but the whole plan should be completed for about 933,000 LP. The technical work of development should not exceed the cost of 700,000 LP and the time needed three to five years, employing 300 to 500 workers.

Having based this study on earnest and intimate acquaintance with the situation, perhaps I may be permitted to hope for its serious consideration by the government. The plans sketched above are to be understood as the writer's original ideas, although their presentation is by no means complete.

A NOTE ON PALESTINIAN EPIGRAPHY

By T. H. Gaster

Yeivin's interpretation of the Beth Shemesh ostracon (PEQ. 1937, pp. 187–192) can be illustrated from several quarters. In offering this additional material, the present writer would make it quite clear that he does not thereby subscribe to Yeivin's conclusions. It seems advisable, however, in this initial stage of decipherment, that whatever can be said in support of any view, even when it is not one's own, should at least be submitted for consideration.

Marks over certain letters are read by Y. as numerical signs, dots being units and " commas " tens.

This can be paralleled in a curious inscription from Ras Shamra, written retrograde (SYRIA XV. 103). There, numerals seem to be indicated by combinations of verticals, circles and diamonds (v. QS. 1935, p. 137). Similar, too, are Minoan methods of numeration described by Sir Arthur Evans in *Scripta Minoa* I, p. 256, whilst the three dots on the Lachish Ewer also come into the picture. These precede the mention of three deities, and we now know from other Lachish inscriptions that they are not a word-divider, as was at first supposed.

If Y. is right, numerical notation among the Palestinian Semites is now pushed back into an antiquity hitherto unsuspected, for the newly recovered system would be the prototype of the numbers found on the Samarian ostraca and on later Nabatæan and Palmyrene documents. In this connection, attention may be called to an excellent study of the whole subject by Solomon Gandz published in the *Proceedings of the American Academy for Jewish Research*, 1933 (pp. 54–112, with tables) under the title " Hebrew Numerals." Gandz points out that in Vth–IVth century Aramaic inscriptions (e.g., CIS ii. 113 Cooke, NSI., p. 195, from Tema ; CIS ii. 146 Cooke, p. 210, Papyrus Luparensis) the units are arranged in groups of three, as also in the Babylonian and the Egyptian systems (p. 68). A similar arrangement seems to obtain in the case of the dots on the ostracon. As for the " comma," this recalls the sign for " 10 " on the Samarian ostraca, as well as on the Nabataean inscriptions. Gandz tends to connect it with the hoopsign in Egyptian.

The list of proper names accompanied by numbers finds a close parallel in several of the Ras Shamra texts, where the latter are given *in words*. Thus, Bauer No. 57 is a list of ten proper-names, each followed by a number, e.g. ḫ-m-ś " five," š-l-š "three," š-m-n ‘-ś-r-h "eighteen," &c. The Ras Shamra tablets 1929, Nos. 25 (fragmentary), 29 and 36 (a mere chip) are of the same order. Lists of similar type also appear among the documents found at Elephantine (e.g., P. 10,678, 10,974). In those texts, the numbers are often followed by abbreviations having *monetary* connotation, e.g., š=" shekel," r=r-b-‘ "quarter-shekel," &c.[1], and if the analogy of so late a parallel be admissible, this would suggest that the numbers in the Beth Shemesh ostracon do not necessarily refer to " days worked," as Y. assumes.

Among the names in the ostracon-inscription, Y. detects a certain עקאחז, in which he regards עק as the name of a deity, comparing the עקקם of a Ras Shamra text. This comparison is quite untenable. The Ras Shamra עקקם are *not* "a class of gods," as stated (p. 191). The name is given, along with that of אכלם " devourers," to certain demoniacal monsters created by El in order to lure his enemy Baal to his doom.[2] The word is explicable from the Arabic عقَّ " to rend," and thus means simply " the Raveners, Renders."

Another name detected by Y. is גמען which he equates with the Aramaic גמע " sip." This is clearly a slip, for גמע means " to *gulp*, *swallow*," rather than " to sip " ! The name would thus be synonymous with the Hebrew בֶּלַע. Nevertheless, it must be admitted that this verbal element does not recur elsewhere, as far as I know, throughout the whole range of Semitic nomenclature. With the exception of Ḥ-n-n (previously recognized by Dussaud), the same observation applies to all the other names recovered by Yeivin, and this naturally renders them suspect.

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[1] The abbreviation r also follows numbers in the Ras Shamra tablet, SYRIA XV. 103. It probably possesses a monetary connotation. We may perhaps cp. the Cypriotic *ro*-sign on several Palestinian weights, or the Egyptian 𓂋 = *r* on weights (PSBA. 1901, p. 383). It would mean, approximately, something like our " sterling."

[2] V. my translation in *Acta Orientalia* 1937, pp. 41–8.

With regard to H-n-n, Y. is in doubt whether this derives from rt. ḥ-n-n or from rt. ḫ-n-n. The point is surely decided, however, by comparison with such similar names as חֲנַנְאֵל and חֲנַנְיָה of which the Assyrian and Greek transcriptions are respectively Ananî’-el and ’Ανανίας showing that the initial letter is ḥ. Moreover, the root ḫ-n-n means " to stink " (*cf.*, Arabic and Syriac, and Heb. Job, 19.17), and " Stinker " is not a proper-name given by anyone outside the third form !

I refrain for the present from offering any detailed comments on Yeivin's interpretation of the Bowl-inscription from Lachish. It seems to me almost as fantastic as my own efforts, and consequently I am very suspicious of it ! In the first place, it would appear to run counter to the *ductus litterarum*, as made out by Harding. Through the courtesy of Mr. Starkey, I have myself examined the original, and I confess that, with the best will in the world, I cannot find what Yeivin finds. The " wiggle " is curtailed by him, the seventh (or eighth) letter is given a loop which it does not possess, after it a non-existent word-divider is introduced, and two traces of lime are read as vestiges of letters. On this basis, it may be said without discourtesy, anything might be anything.

As for the proposed sense, the writer hopes to examine this in detail at a future date.

PALESTINE'S NEW LIGHTERAGE PORTS

By Harold J. Shepstone, F.R.G.S.

One of the problems confronting the British authorities when they took over the administration of Palestine from the League of Nations in 1922 was the lack of efficient harbour accommodation. Although one of the most ancient of lands Palestine's facilities for handling ships and cargo was poor in the extreme. Along its 150 miles of coast there was no harbour that provided shelter for a modern cargo or passenger steamer.

At both Haifa and Jaffa, the country's two recognized ports, the facilities for dealing with passengers and freight was decidedly out-of-date. Haifa boasted of a small jetty. Although it offered shelter for small craft, it was of little service to ocean-going vessels. The latter had to anchor half-a-mile or more off shore, lighters being employed for the transport of passengers and cargo to and from the quay. At Jaffa, the Joppa of Biblical times and the acknowledged port of Jerusalem since the days of Solomon, there was but a crude natural shelter, a few acres in extent and only a few feet deep, suitable only for small craft, lying between the shore and a ledge of jagged rocks. A narrow gap in the reef provided an entrance, calling for great skill to negotiate it with any sea running. As at Haifa, cargo and passenger vessels had to lie in the open sea, and passengers and freight to be conveyed to and from ship by lighters.

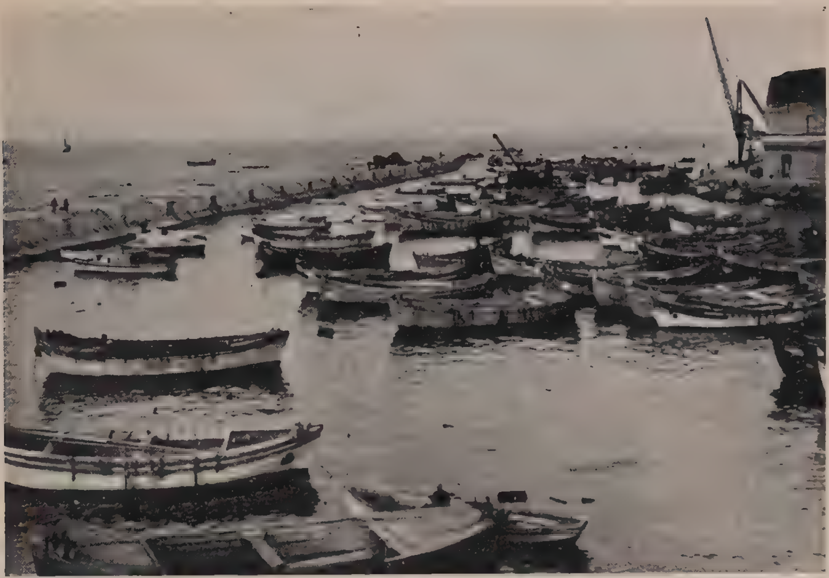
It soon became evident that something had to be done in supplying Palestine with more efficient harbour accommodation. Accordingly a deep harbour was built at Haifa at a cost of £1,250,000. It was formed by building out two breakwaters enclosing a sheltered water area of 300 acres, deep enough to take the largest vessels afloat. The harbour was officially opened in October, 1933. So rapid has been the development of Haifa and Palestine generally, that the port authorities are finding it difficult to keep pace with demands.

While it was expected that the new harbour at Haifa would relieve some of the congestion which was being experienced at Jaffa, principally due to the phenomenal growth of the citrus industry, it soon became evident that something would have to be done to improve the shipping facilities at this ancient port. Despite the advantages afforded by the new port in the north Jaffa was still going ahead by leaps and bounds. In 1922 she was shipping about a million cases of citrus fruit. By 1936 this export trade had grown to over five million cases. In 1922 the exports from Jaffa totalled 53,000 tons and her imports 103,000 tons; by 1934 these figures had grown to 121,000 and 487,000 tons respectively.

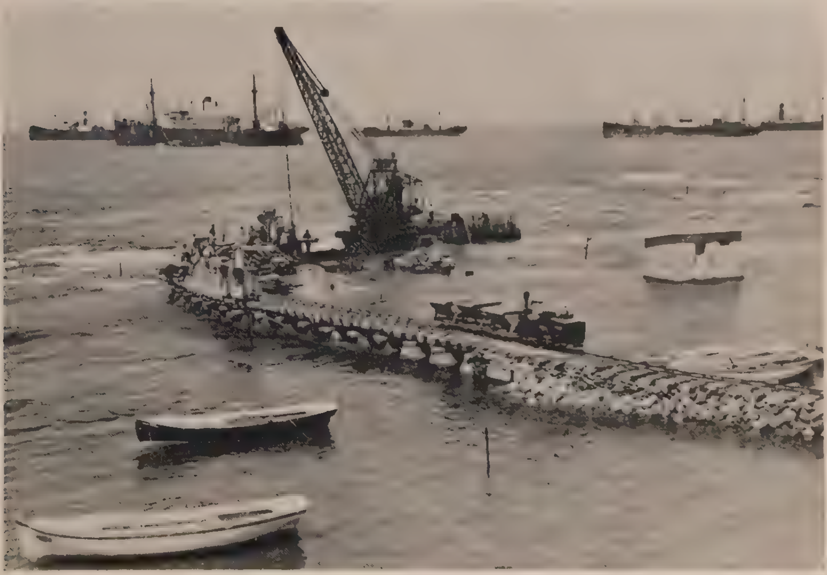
As already stated, Jaffa had no harbour, only a small shelter formed by a belt of jagged rocks, giving protection to lighters, and a narrow quay outside the Customs House, situated in the most congested part of the old town. There was no proper facilities for handling cargo, and practically the whole of the work was done by manual labour. This jagged, rock-protected haven has now been enlarged and improved by the erection of a sea wall and breakwater. Quays have been built, and upon reclaimed ground large transit sheds, warehouses, cranes and other facilities are provided for the more rapid and efficient handling of the trade of the port. Over £200,000 has been spent on this work.

Jaffa is built on a rocky hill projecting in the form of a small cape slightly beyond the general run of the coastline. At this rocky headland the shore is protected by a reef, running almost straight from north to south. It lies just awash, about 300 to 400 feet from the shore. Between the reef and the shore lies a fair sized sheet of shallow water, capable of accommodating 200 lighters and a few small sailing craft. It is protected from any sea except one coming from between north and north-north-west—that is, almost straight down the coast. The entrance to this haven is a bare twenty yards and not easy to negotiate if there is any sea running. A rock at the entrance, about 10 feet high, has earned fame from the legend attaching to it. It is said that Andromeda was chained to it to be devoured by a great sea monster to appease the wrath of Poseidon, the God of the Sea, when, as in the story of St. George and the Dragon, she was rescued in the nick of time by Perseus.

In Hebrew times this sheltered sheet of water was not only



NEW LIGHTERAGE PORT AT JAFFA. FORMED BY BREAKWATER ON PARTIALLY SUBMERGED REEF



BUILDING THE BREAKWATER AT JAFFA

FIRST BOAT OF PROVISIONS LANDED IN JAFFA HARBOUR AFTER THE ARAB STRIKE more commodious than it is to-day, but much better protected. Evidence would indicate that the little harbour extended further inland. This belief is based on the maritime articles dug up on the spot, such as pieces of old anchors. The ships of those days only drew a few feet of water, and could easily have made use of the shelter. But the reef to-day is very jagged and broken. In Bible times it was no doubt much more pronounced, running more evenly and standing higher in the water, thus fulfilling the role of a natural breakwater to any shipping lying within the sheltered area. The rocky barrier has been partially shattered by the continuous poundings of the heavy seas.

It is this ancient refuge used by the ships of Solomon's navy which the engineers have restored. A sea wall has been built on the reef. At its southern end the wall makes a return bend and connects with the shore south of the town. Some eleven and a half acres of land have been reclaimed within the protection of this wall. To the north the wall is prolonged along the reef to form a breakwater, the combined length of the sea wall and breakwater being about 3,500 feet. The breakwater and sea wall are built up of concrete bonded to the existing reef. The work was often hindered by rough seas. During storms considerable damage was done to temporary works, shuttering being displaced and service gantries being swept away.

The area of sheltered water enclosed by the breakwater is ten and three-quarter acres, and it has been dredged to a depth of six and a half feet. Hence the harbour is only suitable for lighters and small craft, for which permanent moorings have been laid down to accommodate some 200 of these vessels. Cargo and passenger boats have still to lie half-a-mile or so off shore in the open roadstead ; frieght and passengers being conveyed from ship to port and vice versa by lighters manned by Arabs. These native boatmen display wonderful seamanship in the way they manœuvre these unwieldly craft. The lighters carry from ten to fifteen tons of cargo apiece, and these little craft often handle 1,500 tons of cargo a day. They cannot operate, however, in rough seas.

Within the harbour new quays have been built and upon the reclaimed ground a transit shed capable of holding 180,000 cases of citrus fruit has been erected as well as a large inspection shed for use during the orange export season, from December to March. There are also warehouses and dump grounds, Customs House and port offices, wall and other cranes, chutes, conveyors and other mechanical devices for handling freight. Other desirable improvements have been carried out in the town itself. Its slums have been cleared away, new roads built and others widened. The work at the harbour was carried out by a firm of British engineers, Messrs. Rendel, Palmer & Tritton.

Adjoining Jaffa to the north is the new Jewish city of Tel-Aviv which, with its population of some 150,000, all Jews, is the largest city in Palestine. During the six-months Arab strike of 1936, when the Port of Jaffa was closed and the Jewish communities in Tel-Aviv and Jerusalem experienced difficulty in procuring goods from outside, permission was granted for the discharge of certain categories of goods on the seashore at Tel-Aviv. Within two days of the granting of this permission unloading began. The conditions were most primitive, and in their enthusiasm Jewish boatmen entered the sea to their waists, carrying the goods on their backs up the shore to the hastily erected Customs House.

A small wooden jetty was built out to facilitate the unloading of lighters. This was quickly found to be unsuitable for efficient service and has been replaced by a permanent steel jetty 720 feet long, and 21 feet wide, equipped with cranes and rails for the rapid handling of cargo. For several months during calm weather between 400 and 500 tons of cargo a day was landed upon the jetty, and some fifty tons of Palestinian goods shipped from it daily.

Then came the problem of providing shelters for the lighters when the weather was bad. The first idea was to run them into the mouth of the Yarkon River close by. This did not prove satisfactory, and an alternative scheme for a small port on the shore was begun. Later the Harbour and Communications Council of Tel-Aviv decided to increase this port in size to form a lighterage port similar to that at Jaffa.

The harbour which has been formed by building two long sea walls out from the shore, provides accommodation for about eighty lighters, the area of sheltered water being about three acres. A slipway for the repair of lighters has also been provided within the harbour. The quay, which has a length of 425 feet, will permit of the loading of from 10,000 to 15,000 cases of citrus fruit a day. Upon the shore, transit shed, warehouse, Customs House and port offices have been built.

While Palestine has thus been given a deep harbour at Haifa and lighterage ports at both Jaffa and Tel-Aviv, many are of the opinion that the trade of the country warrants something more—the construction of a second deep harbour at either Jaffa or Tel-Aviv. Such an undertaking would be costly, demanding an expenditure in the neighbourhood of £2,000,000, but the idea of such a harbour is, nevertheless, under active consideration by the authorities.

REVIEWS AND PUBLICATIONS

Palestine Lands and Surveys.

THERE is a kind of melancholy interest about the Annual Report of the Department of Lands and Surveys for the year 1936. The Commissioner, Mr. F. J. Salmon, is able to show a record of excellent work done during the year in question, excellent, but much interfered with, and in some respects conditioned by, the unfortunate " disturbances." Indeed the technical side of the work of the Government in Palestine has generally been of a high order, and those who appreciate such efforts to apply science to the well-being of the population may well look forward with some apprehension to an uncertain future.

Several paragraphs of the Report deal with the management of the Haifa Harbour (reclaimed area) Estate. It is stated that an area of 130 dunums is available for development for general and commercial purposes. Certain sites are reserved for a railway station, a post-office, an hotel, parking spaces and a market. A Seamen's Institute has been built by the British Sailors' Society at a cost of £P.15,000.

It is stated that Land Settlement field work, and the hearing of cases, " was interrupted during a great part of the year by the disturbances."

The following paragraphs deserve quotation in full : " An interesting reaction of the recent disturbances occurs in the variation of land values in different parts of the country. Arab owned land in the vicinity of existing Jewish Settlements stands at a much higher price than similar land in places remote from such settlements. The present tendency is for Jewish settlers to acquire land only in the vicinity of existing settlements ; that is to say that the existing settlements are being enlarged and consolidated instead of there being an increase in new isolated holdings."

" The agitation for the restriction of the sale of Arab land to Jews has led to an increase of indirect sales through neutral intermediaries who may either receive a commission for allowing the sale to take place through them, or may actually acquire the land and sell at a profit. An instance of this is the sale of 837 dunums of land by three influential Arabs to an intermediary who sold on the same day and at the same price to a Jewish organization."

There is an interesting technical note to the effect that taking account of seasonal variations, the present surface of the Dead Sea is at an average depth, below Mean Sea Level, throughout the year, of 392 metres (1,286 feet). Kitchener in 1878 obtained the value 393.8 metres (1,291 feet), but his value would not have the same precision as the modern value.

An Air Survey, covering an area of 600 square kilometres, or 230 square miles, was carried out of the desert west of the Dead Sea, and this will be used in the preparation of the Bethlehem sheet of the 1:100,000 series. It is remarked that the Air Survey of this broken and desolate tract of country has saved much expense, and that a rigorous survey by normal methods would not have been justified.

A new map of the Old City of Jerusalem has been published on the scale of 1:2,500; this map is based upon the Survey of the Old City executed by Captain C. W. Wilson in 1864–5, and the accuracy of this seventy-year-old survey was sufficient for it to serve as a framework for the new edition. This is excellent testimony to the thoroughness of the original undertaking which led to the foundation of the Palestine Exploration Fund in June, 1865.

C. F. C.

Old Testament, Volume I. *The History and Religion of Israel.* By W. L. Wardle, M.A., D.D. (Clarendon Press, 4*s.* 6*d.*, 1936.)

To that admirable series, the Clarendon Bible Old Testament, Dr. Wardle has prefixed a general volume, in which he deals with the history and religion of Israel. He begins by placing Israel in its setting in the Ancient East, geographically and historically. He then traces Israel's origins and development to the settlement in Canaan, the period of the Judges, the rise of the kingdom, the divided kingdom, the exile and the return. These six chapters form a clear and well proportioned outline, with discussions on difficulties as to dating. Here it may be noticed that the conventional later date (1215 B.C.) for the Exodus is preferred to the earlier date (*c.* 1450 B.C.), now more generally held. On the other hand, the author prefers the later date for Ezra, the arguments for which are very clearly and concisely set out.

The second part of the book (eight chapters) deals with the religion, its background of animism and Canaanite beliefs and practices, its foundation by Moses, the development of Law and Prophecy, a short account of the teaching of each prophet being given. In the last two chapters, the later literature and the debt of Israel to other nations are discussed. Dr. Wardle agrees with Drs. Oesterley and Robinson, as against Dr. E. O. James, in finding traces of primitive totemism surviving in the Old Testament. He believes that the Decalogue in its simplest form goes back to Moses, instancing ancient parallels in Babylon and Egypt; and attributes to Moses a more advanced form of religion than do most modern writers. As might be expected from the author of *Israel and Babylon*, a knowledge of Babylonian customs and laws is shown throughout the book, and some interesting comparisons are made with the customs, laws and folklore of Israel.

In dealing with the prophet Ezekiel, to whom, as he says epigrammatically, " rite and right are almost synonymous," we think that he lays too much stress on the " change of emphasis, from the prophetic religion of grace to the friendly religion of ritual." After all, the priest is not only concerned with ritual; and in any case the ritual is not an end in itself—it is a means to an end. But the priest is also the pastor, and this is shown in Ezekiel's care for the individual souls of men and their relationship with God. In fact, if it is still possible to consider the Book of Ezekiel as a unity, this priest-prophet seems to teach the necessity both of personal religion and of the worship of the community—surely an advance on pure individualism. And is not the " prophetic " religion of pure grace taught in chapter xxxvi ?

But this is a matter of opinion, and a small point in an excellent and useful book. The illustrations are as interesting and appropriate as we are accustomed to expect in this series.

The only misprint we have noticed is " monolater " for " monolator " on p. 150. On p. 12, Lachish is identified with Tell-el-Ḥesy, instead of with Tell-ed-Duweir, following modern archæologists.

E. W. H.

Children of the Wilderness. By S. Gamzu Gurney. (Milford, 1937.)

Mrs. Gurney has written an interesting and unusual book. As a sister of Professor Garstang, she has had special opportunities of gathering first hand information about archæological discoveries ; and she has employed this knowledge, as well as the fruits of wide reading, to illustrate the background of the Old Testament. In seven tales of varying epochs from 2100 B.C. to 1350 B.C., she has shown the state of civilization and religion in the Near East during that period, and the contact with them of the Hebrews. An account of the customs, buildings and worship at Ur is woven into the first tale ; the second illustrates a trek from Canaan to Egypt in search of pasture ; the third, Canaanite customs in Gezer and Salem, including child-sacrifice ; the fourth, life in Egypt in Memphis and Zoan. In the fifth tale, the Osiris festival is vividly described ; the adventures of Hebrew spies, their contact with Moabite and Canaanite, and the fall of Jericho are related in the sixth tale, while extracts from the Tell-el-Amarna letters are neatly embodied in the seventh story, together with a brilliant description of Akhnaton's Court and a sacrifice to Ra. The eighth tale, " The Unchanging Desert," gives the experiences of a present-day traveller in Trans-Jordan, and shows how many primitive habits and ways of speech have survived till the twentieth century. Each tale is prefaced by a short introduction, giving the archæological background and references in the Old Testament to the customs and ideas mentioned in the tale. The book has excellent illustrations, chosen with great care from photographs of places in Babylon, Palestine, and Egypt, of archæological finds, of Egyptian paintings and models. The frontispiece is a particularly beautiful reproduction in colour of an Egyptian wall-painting.

In his preface, the Dean of Manchester expresses the hope that the book will be used not only in schools, but by mothers in teaching their children. For this purpose, it should prove very useful. Teachers, however, should notice a few points which are not in agreement with the present conclusions of many Old Testament scholars. The writer, rather strangely, accepts as authentic the ages of the Patriarchs as given by the late Priestly writer, and builds her chronology upon them. It should also be noticed that there is a growing tendency to date Abraham, and the period of Abraham, not in 2100 B.C. but in 1700 B.C., in relation to the Hurrian migration. On p. 2, it appears that the writer believes in a primitive monotheism, a theory which is surely against the weight of evidence. On p. 33, the Babylonian name, Abam-rama, is translated " Love the Father," and is said to refer to God the Creator. " Abu " is certainly the Babylonian word for " father," and " rama " may be connected with the Babylonian root meaning " compassion " or " mercy," but the translation and its reference are hardly convincing. These, however, are small points in an otherwise interesting and useful book.

E. W. H.

The Gates of Jerusalem. By JACQUELINE COCKBURN. (Murray, 7*s.* 6*d.*, 1937.)

This book presents a vivid picture of present-day life in Jerusalem. The strife between Arab and Jew, the disparity of aim between Zionists and Chasidim, the attempts of the British to keep peace and order are illustrated by a series of episodes in the lives of typical dwellers in the Holy City. The author has evidently lived in Jerusalem and shows a special knowledge of Jewish customs. The seller of antiquities and his shop, the work of the British Police officer, the Anglican Bishop's garden-party, the Jews at the Wailing Wall, the Mohammedans during Ramadan, the Russian nuns and their pathetic benefactors, all are sketched in a really understanding and lifelike manner. Perhaps the most charming portrait is that of the little Franciscan friar. The writer shows how, though life proved to be very different from anticipation, the Jew, the Mohammedan, and the Franciscan each learnt the lesson : " Whatsoever is of the earth is fleeting and vanishes, but the Face of the Lord abides."

E. W. H.

Onomasticon of Palestine. A new method in Post-Biblical Topography. By PAUL ROMANOFF, Ph.D. With a Preface by Professor Charles C. Torrey. New York, 1937 (Reprinted from the *Proceedings of the American Academy for Jewish Research*, vol. VII).

Paul Romanoff's *Onomasticon of Palestine* is a booklet of less than 100 pages in 8vo. As a matter of fact, the sub-title of his work better indicates its contents and the author's own intention. What is presented here, is only a very small section of an exhaustive work on Post-Biblical topography which " covers the vast field of Rabbinic literature from the first to the thirteenth century, . . . also giving full references to Biblical, archæological and contemporary Greek and Latin sources as contained in the writings of the Early Church Fathers and historians " (pp. 2–3). In this great work the author will also include discussions on " the genealogy of the scholars of that period and throw light on the history and traditions connected with the places discussed " (*ibid.*). The present publication deals only with five names mentioned in Jewish Post-Biblical literature, the treatment of which the author wishes to submit for appreciation and criticism before embarking on the final stage of his great enterprise.

These samples, indeed, leave little doubt as to the author's vast knowledge of Post-Biblical literature throughout the ages. One can only express one's best wishes for the speedy completion of the proposed " Onomasticon." Elsewhere I have recently emphasized the need for classified and handy editions of all kinds of texts containing topographical material of ancient Palestine and the adjacent countries. Romanoff's *Onomasticon* would meet the case for an important and exceedingly complex category of such texts.

The author's claim to present here " a new method in Post-Biblical Topography " is open to challenge. His treatment of the material does not seem to be essentially different from the method adopted by all former students of the subject. The outstanding advantage of his " Onomasticon " will be that for the first time it presents an exhaustive collection of the respective texts and a reasoned discussion of all changes and variants with which the topographical names appear in various editions and manuscripts of Post-Biblical writings. In the five examples discussed little can be seen of the author's intention to give also full references to Biblical, archæological and other sources. It may perhaps be added that strict limitation to one category of texts would even be more commendable. The utmost care should also be given to a more surveyable presentation of the material, for instance by a clear typographical distinction of paragraphs and, if possible by insertion of special headings or marginal titles. Discussions on the genealogy of Jewish scholars, based on the author's topographical results, are undoubtedly interesting in themselves, but appear somewhat out of place in a topographical "Onomasticon."

In conclusion I should like fully to endorse Professor C. C. Torrey's suggestion (p. 6, n. 1) that like every other Onomasticon this great work should take the form of an Index of topographical names mentioned in Post-Biblical Jewish literature, with their variant readings and changes. The author's own views on location and identification may conveniently be given in a second column or in a special part of the book so as to avoid mixing up the objective presentation of the material with the author's personal and to a certain extent necessarily subjective views. In this way the learned writer will undoubtedly render a singular service to all students of ancient Palestinian topography unable to survey and to check this great mass of literature.

The Hague (Holland). J. Simons.

We are indebted to Mr. A. F. Brazenor, Hon. Consulting Naturalist to the Booth Museum, Brighton, for kindly identifying and furnishing the following list of a case of birds from Palestine which is exhibited in the vestibule at No. 2 Hinde Street.

The birds form part of a collection made by the late Mr. George Armstrong in 1873–4, when employed on the Survey of W. Palestine, a list of which, compiled by the late Canon Tristram, appears in Q.S. 1876, page 200. Unfortunately, they were mounted in a sealed case without labels which made identification difficult to the non-expert. With Mr. Brazenor's list and a corresponding diagram, this difficulty is overcome.

Corn Bunting : *Emberiza milaria*
Blue-throated Warbler : *Cyanecula suecica*
Goldfinch : *Carduelis elegans*
Stone-chat : *Pratincola rubicola*
Swallow : *Hirundo rustica*
Roller : *Coracius garrula*
Great-Tit : *Parus major*
Blue Rock-Thrush : *Monticola cyanus*
Hoopoe : *Upupa epops*
Little Owl : *Athene persica*
Nightjar : *Caprimulgus europoeus*
Starling : *Sternus vulgaris*
Dove : *Turtur auritus*
Bee-eater : *Merops apiaster*
Kingfisher : *Alcedo ispida*
Grey Kingfisher : *Ceryle rudis*
Sparrow Hawk : *Accipiter nisus*
Long-eared Owl : *Strix otus*
Great-spotted Cuckoo : *Oxylophus glandarius*
Great Grey Shrike : *Lanius sp.*
Sand Grouse : *Pterocles arenarius*
Partridge : *Caccabis saxatilis*
Partridge : *Ammoperdix heyi*
Grey Wagtail (immature) : *Motacilla melamope*
Pied Wagtail (immature) : *Motacilla lugubris*
Squacco Heron : *Buphus ralloides*
Water Rail : *Rallus aquaticus*
Little Bittern : *Ardetta minuta*
Dunlin : *Tringa alpina*
Sandpiper : *Tringoides hypoleucus*
Ringed Plover : *Ægialitis hiaticula*
Redstart : *Ruticilla phoenicurus*
Bulbul : *Ixus xanthopygius*
Sun-bird : *Nectarinia oseae*
Orange-winged Grakle : *Amydryus tristramii*
Halcyon : *Halcyon smyrnensis*

The Committee have to acknowledge with thanks the following :

The Expository Times, July–Sept., 1937. Recent Biblical Archæology, by J. W. Jack.

The Journal of the Royal Society of Antiquaries of Ireland, LXVII, 1.

Great Britain and the Near East, July–Sept., 1937.

St. Martin's Review, May, 1937.

Bulletin de Correspondance Hellenique, LX, 2.

Nouvelle Revue Théologique, July–Sept., 1937.

Revue Biblique, July, 1937. Le cadre géographique du Poème de *Krt*, by R. de Vaux. Le dieu nabatéen de La'aban et son temple, by R. Savignac.

Syria, XVIII, 1. La troisiême campagne de fouilles à Mari, by A. Parrot. La déesse Anat. Poème de Ras Shamra, by C. Virolleaud.

Orientalistische Literaturzeitung, July–Sept., 1937. Archaische Texte des Iraq-Museums in Bagdad, by A. Falkenstein. Kyrusedikt und Tempelbau, by K. Galling. Review of H. Bauer : Die alphabetischen Keilsschrifttexte von Ras Schamra, by J. Friedrich.

Zeitschrift des Deutschen Palästina-Vereins, Bd. 60, Hft. 1–3.

Biblica, 18, 3. "Melchom das Scheusal der Ammoniter," by N. Schneider.

Archiv Orientalni, IX, 1–2. Aramaic and Mandaic Magical Bowls, by C. H. Gordon.

The American Journal of Philology, July, 1937.

Bulletin of the Metropolitan Museum of Art, New York, June–August, 1937.

Geographical Review, July, 1937.

Al Mashriq, April–June, 1937.

Bible Lands, July, 1937.

The Quarterly of the Department of Antiquities in Palestine, VI, 1.

Churches at Bosra and Samaria-Sebaste, by J. W. Crowfoot.

PALESTINE EXPLORATION FUND

ANNUAL REPORT

AND ACCOUNTS

WITH

LIST OF SUBSCRIPTIONS

FOR THE YEAR 1937

PALESTINE EXPLORATION FUND
2 HINDE STREET, MANCHESTER SQUARE, LONDON, W.1

THE PALESTINE EXPLORATION FUND was founded on 22nd June, 1865, for the purpose of conducting systematic and scientific research in the Holy Land.

It was established on the basis of the following rules:—

1. It was not to be a religious society. That is to say, it should be pledged not to advocate or attack any form of creed or doctrine.
2. It was not to adopt or to defend any side in controversial matters.
3. It was to be conducted on strictly scientific principles.

These rules have been jealously observed. The Society's organ, the QUARTERLY STATEMENT, is open to all opinions, while it records as facts only the actual discoveries and results of its exploring officers.

Although the Society is not a religious society, strictly so called, its work necessarily possesses unusual interest for Bible Students of all denominations, who find in the results obtained by exploration much that confirms and illustrates the historical truth of both the Old and New Testaments.

In the course of its existence, the Society, with limited funds at its disposal, has done an immense amount of work, and published the results in books, papers, maps, plans and photographs, primarily for the benefit of its subscribers, and for the advantage of students of the Sacred Scriptures.

PALESTINE EXPLORATION FUND

ANNUAL REPORT FOR THE YEAR 1937

Although the tragedy occurred in the early days of 1938, this report must commence with a reference to the brutal murder, by a band of Arabs, of Mr. J. L. Starkey on 10th January last. Mr. Starkey was well known to most of us and was a good friend of the Fund. He had recently joined our Executive Committee and we had looked forward to many years of helpful co-operation from such a distinguished archaeologist and administrator. At the time of the murder he was in the midst of his sixth season of excavation at Tell Duweir, the ancient Lachish; and it was he who had discovered the famous "Lachish Letters." He had always maintained most friendly relations with his labourers and the people of the neighbourhood, and his murder was an unprovoked and savage crime.

Owing to the disturbed condition of the country, the Archaeological Survey of Palestine made little progress during the year. But it was possible to carry out certain preliminary measures in the way of organization and equipment, and the partial examination of Sheet 7 (Jaffa). The Director of the Survey, Mr. P. L. O. Guy, reported in October that work in the hilly eastern part of that Sheet was quite ruled out for the time being; and it was necessary to limit the field work to the western part. It is proposed to publish in the PALESTINE EXPLORATION QUARTERLY, from time to time, detailed reports of the examination of sites, as such reports become available. A report on the subject of the Survey appeared in QUARTERLY for January, 1938. The Fund paid £300 into the account of the Archaeological Survey during the year, and of this sum £124 has been expended.

Owing to the insecurity of the country it was considered advisable to abandon the project of a biological expedition to Lake Huleh, which had been suggested as a supplementary undertaking to the Percy Sladen Expedition of 1935.

Three new members of the Executive Committee of the Fund were elected during the year, namely, the late Mr. J. L. Starkey, Miss Kathleen Kenyon and Miss Estelle Blyth. Dr. E. W. G. Masterman has very kindly taken over the duties of Honorary Local Secretary for Palestine, in succession to the late Lady Watson.

The following lectures were given at 2 Hinde Street during the year: 28th January, *The Synagogue and the Diaspora*, by Dr. Helen Rosenau; 25th February, *The Desert Yesterday and To-day*, by Major C. S. Jarvis; 18th June, *Excavations at Lachish as illustrating Bible History*, by Mr. J. L. Starkey; 27th October, *The Forty Years' Wanderings of the Israelites*, by Major C. S. Jarvis, late Governor of Sinai; 24th November, *New Texts from Ras Shamra and their Significance*, by Professor S. H. Hooke.

The Annual Exhibition of the Egypt Exploration Society took place in the rooms of the Fund from 5th to 24th July.

Expressions of approval have been received with regard to the enlarged and improved format of the PALESTINE EXPLORATION QUARTERLY. The Executive Committee of the Fund desire to record their thanks to the contributors of articles to the QUARTERLY during the year 1937. The principal contributors were: Mr. J. L. Starkey, reports on the *Excavations at Tell Duweir*; Dr. J. W. Jack on *The Trephined Skulls from Lachish*; Mr. T. H. Gaster, articles on *Palestinian Epigraphy*; Prof. L. A. Mayer and A. Reifenberg on *Three Ancient Jewish Reliefs*; Mr. Lankester Harding, *Some Objects from Trans-Jordan*; Mr. S. Hillelson, *Notes on Bedouin Tribes of the Beersheba District* (translated from Aref Bey's books); Mr. A. M. Hyamson, *Palestine Statistics*; Dr. E. O. Forrer, *The Hittites in Palestine*, Part 2; Col. F. J. Salmon on *The Modern Geography of Palestine*; Mr. S. Yeivin, *The Palestino-Sinaitic Inscriptions*; Dr. E. L. Sukenik, *Note on an Inscribed Potsherd*; and *A Jewish Tomb in the Kedron Valley*. Also various notices and reviews of publications by the Editor and other contributors.

Casts of the Baluah stela and of the recently discovered fragment of another "warning to Gentiles" inscription, have been acquired for the Museum, by the courtesy of the Palestine Department of Antiquities.

A museum case has been arranged for the display of the Samaria ivories; and another shows a series of lamps from Palestine dating from the Bronze Age to the Arab Period. As reported by the Treasurer, the Fund has received a legacy of £208 from the estate of the late Lady Watson, and it is proposed to apply a part of this sum, in accordance with her expressed wish, to some object which will commemorate the interest which was always felt in the Fund by her husband, the late Sir Charles Watson, Chairman of the Executive Committee from 1905 to 1916—an interest which was also felt by Lady Watson herself. The purchase of a modern museum case is under consideration.

C. F. Close,
Chairman.

TREASURER'S REPORT FOR 1937

THE total receipts for 1937 were £1,647 6*s.* 11*d.*, including a legacy of £208 7*s.* bequeathed by the late Lady Watson, and £150 contributed by the Trustees of the "Seven Pillars of Wisdom" Fund towards the payment of a student working for the Archaeological Survey of Palestine.

The amount from subscriptions, £735 16*s.*, is a reduction of £39 on the previous year which included two Life compositions amounting to £53, ordinary subscriptions are thus up by £16.

Sale of publications is £179 less than 1936, and this difference is due to the substantial amount we then received from royalties on the sale of the second edition of *The Wilderness of Zin.*

Rents, at £402 17*s.* 7*d.* is the normal yearly figure from our lettings.

Income tax repayment from covenanted subscriptions does not appear, as our usual claim had not been met by the end of the year, but will be added to 1938 receipts.

On the expenditure side, we record £300 passed to the Archaeological Survey Account.

Owing to the abandonment of the proposed expedition to Lake Huleh, the £10 contributed by the Zoological Society of London in 1936, has been returned.

Printing, £440 7*s.* 1*d.*, including Editorial fee, has exceeded the anticipated increase involved by the change of format of the *Quarterly*, and this increase is primarily due to an addition of some forty-eight pages to the year's volume.

The renewal of a stock of casts of the raised maps is responsible for inflation of that item.

The remaining expenditure is maintained as low as possible consistent with efficiency, but we may anticipate some increase on account of repairs to our premises during 1938, when also, as stated by the Chairman, it is proposed to devote some part of Lady Watson's bequest to the purchase of a museum case.

S. F. NEWCOMBE,
Hon. Treasurer.

PALESTINE EXPLORATION FUND

BALANCE SHEET 31st DECEMBER, 1937

LIABILITIES.	£	s.	d.	£	s.	d.
CAPITAL :—						
AUTHORISED—200 Shares of £1 each	200	0	0			
ISSUED—10 Shares of £1 each—not called				—		
CREDITORS—For Printing and Current Expenses				41	13	8
"SEVEN PILLARS OF WISDOM" TRUST				124	16	0
SURPLUS OF ASSETS OVER LIABILITIES :—						
(Excluding Donated Property) As per last Balance Sheet	1,790	6	5			
Add Surplus for the year	130	19	0	1,921	5	5
				£2,087	15	1

C. F. CLOSE, *Chairman.*

S. F. NEWCOMBE, *Hon. Treasurer.*

ASSETS.	£	s.	d.	£	s.	d.
FREEHOLD PROPERTY—DONATED—No. 2 Hinde Street (Estimated value £5,000)				—		
ALTERATIONS AND IMPROVEMENTS No. 2 Hinde Street				1,188	17	5
MUSEUM, LIBRARY AND STORE-ROOM, FIXTURES, FITTINGS, FURNITURE, ETC. (as per last Balance Sheet) ...	£205	19	9			
Additions during the year ...	12	18	11	218	18	8
JEWISH COLONIAL TRUST—DONATED—50 Ordinary Shares of £1 each, fully paid				—		
STOCK OF PUBLICATIONS, MAPS, BOOKS, MODELS, LANTERN SLIDES, LIBRARY, ANTIQUES, FURNITURE, ETC.				—		
SUNDRY DEBTORS				4	0	11
SUBSCRIPTIONS IN ARREAR				41	0	0
CASH :—						
At Bank	£620	7	10			
In Hand	14	10	3	634	18	1
				£2,087	15	1

AUDITORS' REPORT TO THE MEMBERS OF THE PALESTINE EXPLORATION FUND.

We report that we have obtained all the information and explanations we have required as Auditors. We have examined and compared the above Balance Sheet and the Receipts and Payments Account shewn below, with the books and vouchers of the Fund, and, in our opinion, they are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Fund, according to the best of our information and the explanations given to us and as shewn by the books of the Fund.

19 COLEMAN STREET,
LONDON, E.C.2.
31st *March*, 1938.

TURQUAND, YOUNGS & CO.,
Chartered Accountants.

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st DECEMBER, 1937

RECEIPTS.	£	s.	d.	£	s.	d.
To Balance—31st December, 1936 ...				407	10	10
,, Subscriptions and Donations, including Local Societies				735	16	0
,, Sale of Publications:						
Books	97	13	6			
Casts, Maps and Lantern Slides ...	52	12	10			
				150	6	4
,, Rent of Upper Floors and Basement, No. 2, Hinde Street				402	17	7
,, Legacy bequeathed by the late Lady Watson				208	7	0
,, "Seven Pillars of Wisdom" Trust ...				150	0	0
				£2,054	17	9

PAYMENTS.	£	s.	d.	£	s.	d.
By Archaeological Survey of Palestine Account				300	0	0
,, "Seven Pillars of Wisdom" Trust (Student payments)				25	4	0
,, Refund to Zoological Society of London (Lake Huleh Donation)				10	0	0
,, Printing, including PALESTINE EXPLORATION QUARTERLY, Annual Report, Postage and despatch ...				390	7	1
,, Editor's fee				50	0	0
,, Books purchased: For Library ...	13	0	7			
For Re-sale ...	5	11	11			
				18	12	6
,, Casts, Lantern Slides and Photographs				49	10	3
,, Lectures and Meetings				7	2	0
,, Repairs and Maintenance				14	19	2
,, Furniture and Fixtures: Museum and Library Fittings and Fixtures				12	18	11
,, Salaries and Wages				443	12	8
,, Postages and Telephone				31	5	0
,, Fire Insurance				5	15	11
,, Rates and Taxes				10	18	9
,, Lighting and Heating				19	3	5
,, Advertising				2	19	0
,, Stationery and Sundries				16	4	6
,, Audit Fee				10	10	0
,, Cheque Books and Bank Charges ...					16	6
				£1,419	19	8
,, Cash: At Bank } 31st Dec., 1937	620	7	10			
In hand }	14	10	3			
				634	18	1
				£2,054	17	9

	£	s.	d.
Receipts for year, as shown above	1,647	6	11
Less: Arrears of last year's subscriptions etc., received during 1937 ...	62	12	0
	£1,584	14	11
Add: Arrears, etc., at 31st December, 1937, as shown by Balance Sheet ...	45	0	11
	£1,629	15	10

	£	s.	d.
Payments for year, as shown above	1,419	19	8
Less: Creditors at 31st December, 1936, paid during 1937	74	13	7
	1,345	6	1
Add: Creditors at 31st December, 1937, as shown by Balance Sheet	166	9	8
	£1,511	15	9
Less: Capital Expenditure during 1937 as shown by Balance Sheet	12	18	11
	£1,498	16	10
To Balance as shown by Balance Sheet	130	19	0
	£1,629	15	10

LIST OF SUBSCRIPTIONS AND DONATIONS

RECEIVED BETWEEN JANUARY 1ST AND DECEMBER 31ST, 1937, INCLUSIVE.

*** If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next Annual Report.

	£	s.	d.
Adler, E. N., Esq.	0	10	6
Alford, Miss M.	1	1	0
Annett, E. A., Esq.	2	2	0
Argyll and the Isles, Dean of	1	1	0
Armitage, Robert, Esq.	2	2	0
Ashmole, Prof. Bernard	1	1	0
Auffarth, F. B., Esq.	2	2	0
Balston, Miss F. C.	2	1	0
Barclay, Major R. L.	1	1	0
Barham, S. P., Esq.	1	1	0
Barnes, Prof. W. Emery	1	1	0
Barnett, Mrs. H. Lake	2	2	0
Barnett, R. D., Esq.	1	1	0
Barrois, Rev. Prof. A. G.	2	2	0
Barron, Mrs.	1	1	0
Barton, Prof. G. A.	1	0	1
Bate, Miss D. M.	1	1	0
Batho, Miss D.	1	1	0
Battersby, Mrs. E.	1	1	0
Baxendell, J., Esq.	0	12	6
Bayley, Arthur R., Esq.	2	2	0
Beasley, Walter, Esq.	2	2	0
Becke, Major A. F.	1	1	0
Beeman, W. H., Esq.	0	10	6
Belmore, The Earl of	1	1	0
Bentzen, Prof. A.	1	1	0
Bethell, Miss M.	1	1	0
Billson, Miss G.	1	1	0
Bird, Rev. R.	1	1	0
Birnbaum, Dr. S.	1	1	0
Blair, Capt. D. P.	1	1	0
Blair, Dr. C. S.	2	2	0
Blomberg, G., Esq.	1	1	0
Blyth, Miss Estelle	1	1	0
Bodding, Rev. P. O.	1	1	0
Boulton, W. H., Esq.	1	1	0
Bramwell, W., Esq.	1	1	0
Brian, Miss E. O.	1	0	0
Bristow, Ernest, Esq.	1	1	0
Brown, James, Esq., Jr.	2	2	0
Bugbee, Dr. Lucius	1	0	4
Burdon, Rev. R. J.	1	1	0
Busck, A., Esq.	1	1	0
Bushell, W. F., Esq.	1	1	0
Buxton, Dr. P. A.	1	1	0
Carried forward	£56	1	11
Brought forward	56	1	11
Caiger, Rev. S. L.	1	1	0
Cairns, Rev. Dr. W. T.	0	10	6
Carpenter, Rev. F. W.	0	10	6
Catterson, S. M., Esq.	1	1	0
Chalmers-Hunt, D. R., Esq.	1	1	0
Christ Church, the Dean of	1	1	0
Christian, Dr. V.	1	1	0
Clarke, Col. N. P.	0	10	0
Close, Sir Charles	2	2	0
Cobb, Sir Cyril	1	1	0
Cole, S. C., Esq.	2	2	0
Collier, G. J. T., Esq.	0	17	6
Commissariat of the Holy Land	2	2	0
Cooke, Rev. Prof. G. A.	0	10	6
Coullie, Lt.-Col. A. G.	1	1	0
Crabtree, Rev. W. A.	1	1	0
Crace, Mrs.	2	2	0
Crace, J. F., Esq.	1	1	0
Crawford, L., Esq.	1	1	0
Crawford, O. G. S., Esq.	1	1	0
Crowfoot, J. W., Esq.	1	1	0
Curson, Miss D. L.	1	1	0
Curwen, B. H., Esq.	1	1	0
Curwen, Dr. E. Cecil	1	1	0
Curwen, Dr. Elliot	2	2	0
Cust, Archer, Esq.	2	2	0
Daiches, Dr. S.	1	1	0
Danby, Rev. Canon	1	1	0
Daniels, Miss	0	2	6
Davies, Miss A. M.	1	1	0
Deacon, J. F. W., Esq.	2	2	0
Deedes, Mrs. C. N.	1	1	0
Dirk, Pons & Co., Messrs.	1	1	0
Dixon, Rev. H. L.	1	1	0
Dolton, P. H. I., Esq.	2	2	0
Dowling, Miss F. H.	1	1	0
Driver, G. R., Esq.	2	2	0
Du Boulay, Brig.-Gen. W. H.	1	1	0
Dulau, Mons. P.	1	1	0
Edwards, W. C., Esq.	1	1	0
Elliger, Prof. Carl	1	1	0
Elliot, Miss Joan	1	1	0
Elmslie, Rev. Prof. W. A.	1	1	0
Elsdon, Miss	1	1	0
Carried forward	£108	10	5

	£	s.	d.
Brought forward	108	10	5
Elverson, Miss A.	0	5	0
Ennis, Rev. Alfred R.	1	1	0
Evans, E. M. P., Esq.	1	1	0
Evans, Rev. J. G.	1	1	0
Falconer, Harold, Esq.	1	1	0
Farmar, Miss	2	0	0
Finn, Miss	2	2	0
Firminger, Rev. Dr. W.	1	1	0
FitzGerald, G. M., Esq.	2	2	0
Fleming, Andrew, Esq.	1	1	0
Fothergill, Dr. Claud	1	1	0
Fouts, Rev. Prof. W.	2	10	0
Fox, Lady	1	1	0
Frank, Miss	1	1	0
Franklin, A. E., Esq.	1	1	0
Fraser, Chas. J., Esq.	4	4	0
Fremlin Frank, Esq.	3	0	0
Freshfield, The Misses	1	1	0
Frost, F. H., Esq.	1	1	0
Gabriel, J. W. W., Esq.	2	0	0
Gamble, Rev. H. J.	1	1	0
Gardiner, Dr. A. H.	2	2	0
Gardner, Miss Helen	1	1	0
Garner, Rev. H.	1	2	6
Garnett, Rev. T. A.	1	1	0
Garstang, Prof. J.	2	2	0
Gaster, Th. H., Esq.	1	1	0
Georges, Rev. Fr. N.	1	1	0
Gentle-Cackett, Rev. S. W.	1	1	0
Gerold & Co., Messrs.	1	1	0
Gerstley, Mrs.	2	2	0
Gibson, Mrs.	2	2	0
Goadby, F. M., Esq.	1	1	0
Goodenough, Admiral Sir W.	1	1	0
Gold, Mrs.	1	1	0
Gray, Melville, Esq.	1	0	0
Green, F. W., Esq.	2	2	0
Griffin, Dr. F. W. W.	0	10	6
Griffin, H. J. S., Esq.	1	1	0
Griffith, Mrs. F. Ll.	1	1	0
Guerrier, Rev. J. W.	1	1	0
Gurney, Oliver R., Esq.	1	1	0
Hall, T. Walter, Esq.	1	1	0
Hammond, Col. F. S.	2	2	0
Hardman, L. H., Esq.	1	1	0
Harrassowitz, W. Otto	2	2	0
Harrison, Miss W. A.	0	10	6
Harvey, Rev. J. H.	1	1	0
Haslehurst, Miss M. A.	1	1	0
Hay, Major A. E.	1	1	0
Haycraft, Lady	1	1	0
Healy, Archdn. J. W.	1	1	0
Heath, Rev. Alban	2	2	0
Hertz, Very Rev. J. H.	1	1	0
Hiersemann, K. W., Esq.	2	2	0
Hilion, Prof. G.	1	1	0
Hill, Miss E.	0	10	0
Hindley, Miss R. C.	1	1	0
Hippisley, Miss E.	1	1	0
Hodgetts, Miss M. Chambers	1	1	0
Hodgkin, Miss A. M.	1	1	0
Carried forward	£190	3	11

	£	s.	d.
Brought forward	190	3	11
Hodgson, Miss H. L.	0	11	0
Hollis, Miss E. S.	1	1	0
Hollis, Rev. Dr. F. J.	1	1	0
Holwell, E. E., Esq.	1	1	0
Hooke, Prof. S. H.	1	1	0
Hope, The Misses	1	0	0
Horn, Siegfried, Esq.	1	1	0
Houtsma, Prof. D. M.	0	10	6
Howlett, C. E., Esq.	1	1	0
Hulbert-Powell, Canon C. L.	2	2	0
Hunter, Miss M. V.	1	1	0
Hussey, Miss	1	1	0
Hutton, Rev. W. R.	1	1	0
H. W. J.	1	1	0
Hyamson, A. M., Esq.	1	1	0
Hyde, Sir Charles	2	2	0
Hyvernat, Prof. H.	1	1	0
Inglis, Rev. J. W.	1	1	0
Innes, Rev. D. Christie	1	1	0
Jackson, Lady	2	2	0
de Jarnac, Rev. R.	1	1	0
Johnson, Mrs.	1	1	0
Johnson, Mrs. M.	1	1	0
Johnson, Rev. Lewis	1	1	0
Jones, Rev. Canon R. C. S.	1	1	0
Jones, Rev. Thos. E. H.	1	1	0
Julian, Mrs. M. B.	1	1	0
Karadja, H.H. Princess Despina	1	1	0
Kelly, Prof. F. T.	1	0	0
Kemble, Miss R. N.		5	4
Kennedy, Dr. S. H.	1	1	0
Kenyon, Sir Frederic	1	1	0
Kenyon, Miss K. M.	1	1	0
Ketcher, Miss F. F.	2	2	0
King, Miss A. J.	1	1	0
Kingham, J., Esq.	1	1	0
Kip, A. L., Esq.	0	10	0
de Knevett, Edgar, Esq.	1	1	0
Koehler, K. F., Esq.	2	2	0
Ladson, C. A., Esq.	1	1	0
Lake, H. Coote, Esq.	1	1	0
La Page, John, Esq.	1	1	0
Larsen, Rev. Canon H. L.	1	2	0
Laxon, Sidney, Esq.	1	1	0
Lee, Rev. E. J.	0	10	6
Lee of Fareham, Lord	2	2	0
Lees, G. M., Esq.	1	1	0
Leng, John A., Esq.	4	4	0
Llewellin, Mrs.	4	4	0
Levett, Rev. T. P.	1	1	0
Libraries—			
Aberdeen Public Library	0	10	6
Aberdeen University	1	1	0
Allegheny College	0	10	6
Alleyn's School	1	11	6
Alma College	1	1	0
American Academy, Rome	1	1	0
Carried forward	£258	2	9

	£	s.	d.
Brought forward ...	258	2	9
American Philosophical Society	1	1	0
American Univ. Beirut	1	1	0
Amherst College	1	1	0
Amsterdam University	1	1	0
Armagh Library	1	1	0
Ashland College	1	1	0
Ashmolean Museum	1	1	0
Auburn Theol. Seminary	3	2	4
Bangor Theol. Seminary	3	3	0
Basel University	1	1	0
Berkeley Bap. Div. School	1	1	0
Berlin University	1	1	0
Birmingham Public Libraries	1	1	0
Boston Public Library	1	1	0
Bradford City Library	0	10	6
Breslau University	1	1	0
Brighton Public Libraries	1	1	0
Bristol Public Libraries	1	1	0
British Columbia, Union College of	1	1	0
Brown University	1	1	0
Bucknell Library	0	10	6
Butler University	2	2	0
Cairo Service des Antiquites	1	1	0
California University	0	10	6
Cambridge Museum of Archaeology and Ethnology	5	0	0
Carnegie Library, Pittsburg	0	10	6
Case Memorial Library	2	0	9
Chicago University	1	1	0
Colgate-Rochester Divinity School	1	1	0
Cone Memorial Y.M.C.A.	1	0	7
Congregational Library, Boston	3	3	0
Copenhagen Royal Library	2	2	0
Cornell University (2 subs.)	2	2	0
Davidson College	1	6	3
Duke University	1	1	0
Durham University	2	2	0
Edinburgh University	2	2	0
Egypt Exploration Society	2	2	0
Emmanuel Missionary Coll.	1	1	0
Eton College Library	1	11	6
Gardner Sage Library	3	3	0
Geneva University	3	3	0
Gravesend County School	1	1	0
Greifswald Palastina Institut	1	1	0
Hague University	2	2	0
Halle University	1	1	0
Hamburg University	1	1	0
Harvard College	1	1	0
Haverford College	1	1	0
Heythrop College	1	1	0
Hibbard Old Testament Library	3	3	0
Illinois University	1	1	0
Innsbruck Biblische Seminar	1	1	0
Carried forward ...	£337	6	2

	£	s.	d.
Brought forward ...	337	6	2
Institut de France	1	1	0
Jewish Institute of Religion	1	1	0
Jewish Memorial Council	1	1	0
Jewish Theol. Seminary	1	1	0
Jews College	0	10	6
John Rylands Library	1	1	0
Konigsberg State Library	1	1	0
Leeds Library	2	2	0
Leipzig University	1	1	0
Lobl Literarische Anstalt	1	1	0
London University Lib.	1	1	0
Los Angeles Public Library	1	1	0
Lund University	1	1	0
McMaster University	2	2	0
Manchester College, Oxford	2	2	0
Manchester University	1	1	0
Mansfield College	1	1	0
Mary Baldwin College	1	1	0
Metropolitan Museum of Art	1	1	0
Michigan University	1	1	0
Milligan College	1	1	0
Montreal Theological Col.	1	1	0
Moody Bible Institute	2	2	0
Mount Hoylake College	1	1	0
Morcambe Methodist Church	1	1	0
Murray Library	3	3	0
Neuchatel University	2	2	0
New College, London	1	1	0
New York Public Library	1	1	0
Newberry Library	1	1	0
Newcastle-on-Tyne Library	2	2	0
North Wales University	2	2	0
Northern Baptist Seminary	3	3	0
Northwestern University	1	1	0
Oberlin College	1	1	0
Ottawa Parliament Liby.	1	1	0
Paris, Bibliotheque Nationale	1	1	0
Peabody Institute	1	1	0
Peiping National Library	2	2	0
Pittsburg-Xenia Seminary	2	2	0
Pretoria University	0	10	6
Princeton Theol. Seminary	1	0	6
Princeton University	3	3	0
Prussian State Library	1	1	0
Royal Asiatic Society	1	1	0
St. Andrew's University	1	1	0
St. Augustine's College, Canterbury	1	1	0
St. Deiniol's Library	1	10	0
St. Louis Public Library	1	1	0
Selly Oak Colleges	2	2	0
Smith College	0	19	9
Sorbonne University	1	1	0
South Africa Public Library	1	1	0
So. Baptist Theol. Semin.	1	0	0
Carried forward ...	£410	1	5

	£	s.	d.
Brought forward	410	1	5
So. Wales University	2	2	0
Spence Library	1	1	0
Sydney Public Library	1	1	0
Strassburg University	1	1	0
Texas Christian University	1	1	0
Toronto, Victoria University	2	2	0
Union Theol. Seminary	1	1	0
Vaughan Library	0	10	6
Victoria Institute	1	1	0
Victoria Public Library	1	1	0
Washington 7th Day Adventists	1	0	8
Wellesley College	1	1	0
Wells College	2	2	0
Weston-super-Mare Library	1	1	0
Dr. Williams Library	2	2	0
Wisconsin University	1	1	0
Yale University	1	1	0
Zion Research Library	1	1	0
Lombe, Mrs.	1	1	0
Lowis, N., Esq.	1	1	0
Lucas, A., Esq.	1	1	0
Luckock, Rev. Canon A. M.	1	1	0
Luke, Sir Harry	1	1	0
Luzzatto, Mme. Elisabeth	0	19	0
Macalister, Prof. R. A. S.	1	1	0
McClellan, Rev. W. H.	2	2	8
McClintock, Mrs.	1	1	0
McCown, Prof. C. C.	3	2	0
Macdonogh, Gen. Sir George	1	1	0
Maconochie, Rev. J.	1	1	0
McLean, Dr. C. F.	1	1	0
Manwaring, Mrs.	1	1	0
Margoliouth, Prof. D. S.	0	10	6
Marique, Rev. J.	1	1	0
Marriott, Rev. F.	1	1	0
Mathieson, George, Esq.	10	0	0
Max & Co., Messrs. J.	1	1	0
Mayer & Comp., Messrs.	1	1	0
Mills, Col. D. A.	2	2	0
Mitchell, Mrs. J. Malcolm	2	2	0
Mitchley, John W., Esq.	1	1	0
Mond, Sir Robert	13	3	0
Money, R. J., Esq.	1	1	0
Monro, Dr. J. D. R.	1	1	0
Montgomery, Prof. J. A.	2	2	0
Moore, Rev. John	0	10	6
Morrell, C., Esq.	0	10	6
Morris, Rev. F. J. S.	1	1	0
Morris, Robert T., Esq.	1	1	0
Mortlock, Rev. C. B.	1	1	0
Moysey, C. F., Esq.	1	1	0
Mozley, Rev. Canon J. R.	2	2	0
Murray, Rev. W.	1	1	0
Nathan, Col. H. L.	2	12	6
Nelson & Sons, Messrs. Thos.	2	0	0
Neve, A. O., Esq.	1	1	0
Newcastle-on-Tyne, The Bishop of	0	10	6
Carried forward	£502	5	9

	£	s.	d.
Brought forward	502	5	9
Newcombe, Col. S. F.	1	1	0
Newman, E. W., Esq.	2	2	0
Noording, K. L., Esq.	2	2	0
Norwich, The Dean of	2	2	0
Noth, Prof. M.	1	1	0
Nutt, David, Esq.	1	1	0
Oesterley, Rev. Dr. W. O.	1	1	0
Ogden, J. R., Esq.	2	2	0
Obertuschens, Mr. E.	1	11	6
Ord, G. R., Esq.	1	1	0
Orr, William, Esq.	2	2	0
Owen, Miss L. G.	1	1	0
Palestine Potash Co.	3	3	0
Parfit, Rev. Canon J. T.	1	1	0
Parker, Mrs.	0	2	6
Parker, Miss A. M.	2	2	0
Parker, Charles E., Esq.	1	1	0
Parkminster, Rev. Prior of	1	1	0
Parrott, Dr. H. Winnock	1	1	0
Patrick, Rev. Alec	2	2	0
Pazmany, Peter, Esq.	1	1	0
Pearce, H. W., Esq.	1	1	0
Penny, T. S., Esq.	1	1	0
Percival, Rev. S. T.	2	2	0
Pierce, H. B., Esq.	1	1	0
Pierrefeu, Rev. G. M.	1	1	0
Pirie-Gordon, H., Esq.	2	2	0
Pitcairn, Mrs.	0	10	0
Polehampton, Rev. E. H.	1	1	0
Pope, Rev. H., O.P.	1	1	0
Porter, Miss Catherine	2	2	0
Portsmouth, the Bishop of	1	1	0
Powell, Maj.-Gen. Sir Herbert	1	1	0
Reeder, Rev. Preb. W.	0	10	6
Richards, A., Esq.	1	1	0
Richards, Miss C. D.	3	3	0
Rochester, The Bishop of	2	2	0
Rucker, Prof. Dr. A.	1	1	0
Salaman, Dr. R. N.	1	1	0
Salby, George, Esq.	1	1	0
Salisbury, the Bishop of	4	4	0
Sanderson, Mrs.	1	1	0
Schubeler, Mrs.	2	2	0
Scott, Rev. Canon G.	2	2	0
Scott, Miss M. McNair	1	1	0
Scutt, Mrs. F. M.	1	1	0
Shepstone, H. J., Esq.	1	1	0
Sinclair, Dr. J. D.	1	1	0
Slater, Rev. Preb. E. T.	1	1	0
Sloan, Rev. Dr. Andrew	1	1	0
Smith, D. D., Esq.	1	1	0
Smith, Sidney, Esq.	1	1	0
Smith, Rev. Sir George Adam	1	1	3
Smith, Rev. W. H. Payne	1	1	0
Smith & Son, Messrs. W. H.	1	1	0
Speakman, E. G., Esq.	1	1	0
Squire, Mrs.	0	10	6
Stapylton, A., Esq.	1	1	0
Stewart, Brig.-Gen. E. M. P.	1	11	6
Stewart, James R., Esq.	1	1	0
Stone, Rev. Dr. D.	1	1	0
Carried forward	£585	17	6

	£	s.	d.
Brought forward	585	17	6
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Sulley, Henry, Esq.	1	1	0
Synge, Miss M.	1	1	0
Taylor, Hon. Mrs. Charles	1	1	0
Taylor, Gilbert J., Esq.	1	1	0
Tervit, Adam, Esq.	1	1	0
Thacker, Miss E. M.	2	2	0
Thomas, Rev. J. Ll.	0	10	6
Thompson, H. A., Esq.	4	4	0
Topic, Mr. F.	2	2	0
Trotter, Miss A. M.	1	1	0
Truro, The Bishop of	1	1	0
Tullett, Bertram H., Esq.	1	1	0
Turner, George, Esq.	1	1	0
Tweedie, G. M., Esq.	1	1	0
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Walker, Mrs. Harry	1	1	0
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Walsh, A. St. G., Esq.	1	1	0
Walter, Miss C.	2	2	0
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Widdowson, B. C., Esq.	1	1	0
Wigan, W. L., Esq.	1	1	0
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Wilson, H. C., Esq.	1	1	0
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Wilson-Smith, Mrs.	1	1	0
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Winterbotham, A., Esq.	1	1	0
Woodcock, Mrs F. P.	1	1	0
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Kennedy, Rev. Prof. A. R. S.	1	1	0
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	£	s.	d.
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Edwards, John, Esq.	0	10	6
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Gardiner, Sir Frederick	1	1	0
Gemmell, W., Esq.	1	1	0
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Glen, Lawrence, Esq.	1	1	0
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Houston, Andrew, Esq.	1	1	0
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Mauchline, Rev. J.	1	1	0
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Mitchell, Sir George	1	1	0
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	£	s.	d.
Brought forward	3	3	0
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Dormition Abbey	1	0	0
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	£	s.	d.
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